# FACTORS INFLUENCING REPRODUCTIVE HEALTH CHOICES OF WOMEN LIVING WITH HIV IN LIMPOPO PROVINCE, SOUTH AFRICA

by

**Moyagabo Mogau Thema**

submitted in accordance with the requirements

for the degree of

**MASTER OF ARTS**

in the subject

Public Health

at the

**UNIVERSITY OF SOUTH AFRICA**

**SUPERVISOR: PROF TG LUMADI**

**APRIL 2021**

DECLARATION

Student number: 49115987

I THEMA MOYAGABO MOGAU declare that FACTORS INFLUENCING REPRODUCTIVE HEALTH CHOICES OF WOMEN LIVING WITH HIV IN LIMPOPO PROVINCE, SOUTH AFRICA is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the acceptable requirement for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.

| | |
|---|---|
| THEMA MOYAGABO MOGAU | 30 APRIL 2021 |
| ..... | ..... |
| **Full names** | **Date** |

ACKNOWLEDGEMENTS

I would like to thank my GOD, the LION KING OF JUDAH for He carried me through and enabled me to complete this work through many difficulties, dedication, perseverance and hard work.

My greatest gratitude is expressed to the following:

- Prof TG LUMADI, for her ongoing support, brilliant guidance and advices.
- The University of South Africa, Health Studies Department for granting ethical clearance and permission.
- The Limpopo Department of Health Research Ethics Committee for permission to conduct research study.
- Mr MP MANGWANA, for taking his time to assist in interpretation of research questionnaire.
- Mr A KAMPIRA, for his assistance and expertise in statistics for my research study.
- Mrs C MUTSVENE, for assisting with editing and formatting or the research study.
- My mom, Mrs MOKWENA, for her words of encouragement.
- My husband, Mr TP THEMA for his courageous attitude, patience, love, support, confidence in me and pride in my academic endeavour.
- To all participants in this study, for your time and being prepared to contribute to my research study.

DEDICATION

*To Paballo*

TABLE OF CONTENTS

LIST OF TABLES



LIST OF FIGURES

**FACTORS INFLUENCING REPRODUCTIVE HEALTH CHOICES OF WOMEN LIVING WITH HIV**


| | |
|---|---|
| **STUDENT NUMBER:** | **49115987** |
| **STUDENT NAME:** | **THEMA MOYAGABO MOGAU** |
| **DEGREE:** | **MASTER OF ARTS** |
| **DEPARTMENT:** | **HEALTH STUDIES, UNISA** |
| **SUPERVISOR:** | **PROF TG LUMADI** |



ABSTRACT

The purpose of this research study is to determine the factors influencing reproductive health choices of women living with HIV attending primary health care services. The need for this research study is evident in that most women attending health care services at primary health care clinics, and who are HIV positive report unintended pregnancy. The study sought to provide answers to factors influencing their reproductive choices. A quantitative, descriptive and cross-sectional research study was used in this study. The sample consisted of 83 females between the ages of 18 and 40.

The findings of the research study provided the researcher with adequate evidence on the factors influencing reproductive health choices of women living with HIV attending primary health care services. The approach to reproductive health services was still acceptable but needs to be improved. Moreover, the identified factors therefore influenced one's perceptions on reproductive health decisions among HIV-infected women.



**KEY CONCEPTS**

Factors, family planning, women living with HIV, reproductive health choices, sexually transmitted diseases and termination of pregnancy.

# CHAPTER 1: ORIENTATION TO THE RESEARCH STUDY

## 1.1 INTRODUCTION

The rights of women living with Human Immunodeficiency Virus (HIV) on reproductive health are ensured by maintaining the relationship between reproductive health and HIV services. All women have the right to decide freely whether to have a child or not (Wilcher & Cates 2016:833). Since the South African elections of 1994, policies about reproductive rights were put in place, e.g. choice on termination of pregnancy. The National policy framework of South Africa addressed challenges regarding reproductive health and provided a comprehensive guide for reproductive health services (Ramathuba 2013:2).

According to World Health Organisation (WHO) (2014:14), young people between 15 to 24 years old are having unintended pregnancies, leading to unsafe abortions and death (WHO 2014:14). In this research study, the researcher has assessed the factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Greater Tzaneen Sub-district in Limpopo Province.

In this chapter, orientation to the research study, including background information to the research problem, the research problem, significance of the study, definitions, research design, study population and sampling, data collection, scope and structure of the research dissertation are presented.

## 1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

### 1.2.1 The source of the research problem

The Joint United Nations Programme on AIDS (UNAIDS) (2012:1) states that women are most vulnerable to HIV infection due to their role in the society. HIV infection is the most common cause of death among women globally. The health system is overwhelmed by the increased reproductive conditions associated with HIV. In sub-Saharan Africa, adolescent girls and young women accounted for 25% of new HIV infections among adults, and adult women accounted for 56% of new HIV infections. Gender inequalities,

poverty and lack of education contribute to increased risk of contracting HIV among women and adolescent (UNAIDS 2016:07).

The Department of Health published a report in 2015, which gives an overview of HIV and antenatal care. The estimate for HIV prevalence among women attending antenatal care was 30.8% in 2015 (National Department of Health 2015:21). The growth of HIV infection in South Africa has been relentless. The growth proves that the infection rate is increasing. Mopani District Municipality had the highest HIV prevalence rate in 2011 (Mopani District Municipality 2016: 279).

Safe abortions are those that are performed according to WHO guidelines and standards, to reduce the risk of complications. Unsafe abortions are higher in places where access to affordable contraception and safe abortion services are limited. Complications arising from unsafe abortions could be prevented through reproductive health education (WHO 2017:10).

### 1.2.2 Background to the research problem

Many women do not have equal access to reproductive health services. They are faced with stigma, discrimination and social pressure that women must bear children (WHO 2017:60). Women are forced not to use condoms and contraceptives because they want to conceive (WHO 2017:60).

Several studies conducted in South Africa (SA) show that HIV-infected women reported that health providers display attitude towards them when discussing pregnancy issues and that causes women to avoid discussing reproductive health issues in fear of being victimized (Beksisnka, Pillay, Milford & Smit 2014:676). In developing countries, the reproductive health services that supports the adolescent are inadequate which puts the adolescent at a greater risk of death related to unsafe abortions (Beksisnka *et al.* 2014:676).

HIV infected women in South Africa have good access to health services but they are affected by negative factors such as lack of information on contraception and prevention

of unwanted pregnancies. These make them unable to make decisions around pregnancy and childbirth (Mataboge, Boukes and Nolte 2016: 326). In the study conducted by Agbo & Rispel (2017:2), it is indicated that it is the responsibility of the government to ensure that there is effective health care system and to support the rights of people living with HIV on reproductive health. WHO indicated that family planning needs of HIV positive women are not met and has also strengthened the relationship between HIV and reproductive health (WHO:2017).

The existing research suggests that people living with HIV have an expressed desire to have children. The factors that influence this desire are younger age, having a regular partner, perception that the partner want children and knowledge about contraception. In sub-Saharan Africa, studies reported that there is a lot of pressure on women to have children regardless of their HIV status (Agbo et al. 2017:2).

HIV prevalence reports for people between age 15 to 24 years old was at 7.3% in 2012 and condom use dropped from 85.2% to 67.5% for males and from 66.5% to 49.8% for females (Beksisnka et al. 2014:676). A survey conducted in 2007 in four of the nine SA provinces showed that 19.2% of females aged 12-19 years had had at least one pregnancy, the majority of which were unwanted. It was stated that globally, South Africa has the highest number of HIV positive women who are pregnant and needing antiretroviral to prevent mother-to-child transmission (Fatti, Shaik, Eley, Jackson & 2014:874).

It was observed that most HIV positive women attending Primary Health Care Services at Greater Tzaneen Sub-district get pregnant. This is supported by Mopani District Health plan (2018/19:12), which indicates that out of 17022 pregnant women, 3125 were started on ART. At Mopani District there is a significant increase of HIV prevalence among antenatal women at 24.6% - 25.2% from 2014 to 2016. At greater Tzaneen, the rate of antenatal clients started on ART is 92.8% (Nyati *et al.*, 2018:12). According to the Department of Health in South Africa (2015:35), the HIV prevalence among antenatal women increased to 28.3%.

## 1.3 RESEARCH PROBLEM

It was observed that most women attending health care services at Primary Health Care Clinics at Greater Tzaneen Sub-district, and who are HIV positive get unintended pregnancy. This is supported by Mopani District Health Plan (2018/19:12), which indicates that there are 1015 pregnant women who started on ART and 71% were unplanned pregnancies. Even with proper counselling on importance of condom use and other methods, some of them are having unwanted pregnancies and they end up undergoing unsafe abortions. This has a negative impact on HIV positive women.

Apparently, there are some contributory factors that influence the reproductive health choices made by the women. This is also supported by Annual progress report of Limpopo Provincial AIDS Council 2015/16 which stipulates a trend analysis of HIV prevalence in the population in Limpopo Province. The department of Health found that HIV prevalence among antenatal women remained high at 24.6% - 25.2% from 2014 to 2016 (Limpopo Provincial Aids Council, 2017:4) and at Greater Tzaneen Sub district the rate of antenatal client initiated on ART is 92.8% (Department of Health, 2018:12).

Researchers from HRP and the Guttmacher Institute published a study at The Lancet in 2017, which shows that 45% abortions that occurred between 2010 and 2014 were unsafe, and a lot of women were admitted due to complications following unsafe abortions (Rogers, Sapkota, Paudel & Dantas 2019:2).

This prompted the researcher to determine the factors influencing reproductive health choices of women living with HIV attending primary health care services at Mopani District, Limpopo Province.

## 1.4 AIM OF THE STUDY

### 1.4.1 Research purpose

The purpose of this research study was to determine the factors influencing reproductive health choices of women living with HIV attending primary health care services at Mopani District, Tzaneen.

### 1.4.2 Research objectives

The objectives of this research study were:

- To identify the factors influencing reproductive health choices of women living with HIV.
- To make recommendations that could empower women to make informed decisions regarding their reproductive health issues.

### 1.4.3 Research question

- What are the factors influencing reproductive health choices of women living with HIV attending primary health care services at Mopani District?

## 1.5 SIGNIFICANCE OF THE STUDY

The findings of this study on factors influencing reproductive health choices of women living with HIV attending primary health care services at Mopani District will enable the researcher to make recommendations that will assist HIV positive women in making decisions on their reproductive health.

**The Limpopo Department of Health**

The Department of Health will be able to develop programs that aim to facilitate a better understanding of Health Professionals on the reproductive health needs of women living with HIV and to help them to make informed decisions.

**The institution**

The research results could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. Identification of these factors will help in better approach to reproductive health services in these institutions.

**The clinic nurses**

The nurses will be aware of the factors affecting reproductive health choices and respect those choices. To encourage improvement in the attitudes and knowledge of the nurses

in the management of people living with HIV and to have insight into a more holistic approach.

### The patient

The identification of these factors will help to prevent discrimination or denial of reproductive health services by health professionals to patients, with regard to their HIV status. The patients will be free to consult and they will make informed choices that suits them and seek advice on those choices without fear of reprisal.

## 1.6 DEFINITION OF TERMS

### Factors

Factors encourage behaviours that might lead to negative outcome or encourage behaviours that might prevent a negative health outcome (WHO 2012:96). In this research study, factors refer to those which influence the choices of women living with HIV on reproductive health.

### HIV positive Women

HIV positive women are those who have been diagnosed as being HIV positive. In this study, it is women who have at least once visited the selected clinics for receiving ARV treatment (WHO 2012:96).

### Influencing

It is the force caused by factors on women living with HIV about their reproductive health choices. In this research study, a force may include that the women living with HIV cannot make a decisive choice on reproductive health because of some factors (WHO 2012:96).

### Reproductive Health Choices

Reproductive Health Choices are the choices made by the women living with HIV to decide whether to reproduce or not. It is the decision made by an individual to receive reproductive health services (Department of Health 2016:05). UNAIDS (2015:39) defines reproductive health as a state of complete physical, mental and social wellbeing, and not

merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. It means that people have freedom to choose to reproduce.

**Termination of pregnancy (TOP)**

TOP is the removal of the contents in the uterus of pregnant women by surgical or medical means (Health Systems Development Unit 2010:259).

**Family planning**

Family planning allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their birth (WHO 2012:1).

**Sexually transmitted diseases**

Sexually transmitted diseases are defined as diseases that are usually passed from one person to the other through sexual contact and the side of infection is usually (but not always) the male or female genitals (Health Systems Development Unit, 2010:49).

## 1.7 RESEARCH DESIGN AND RESEARCH METHODOLOGY

### 1.7.1 Research Design

#### *1.7.1.1 Research approach and design*

Quantitative research is the collection of data from a larger sample and numbers are used to calculate results. It relies on numbers, measurement and calculations. This approach is highly structured because the responses are easily measured and analysed. As a result of this structured approach, a large sample can be included (Mcintosh-Scott, Mason, Mason- Whitehead & Coyle 2014:133).

Qualitative research is the research approach that is used to explain person's experience form the person involved directly. There is a face to face interview between the researcher and participants. Data is collected from a smaller sample (Gray, Grove & Sutherland 2016:251).

A quantitative, descriptive and cross-sectional research study was conducted in order to determine the factors influencing reproductive choices of women. Quantitative approach was chosen for this research study to collect data in numerical order to answer the research question on the factors influencing reproductive health choices.

Descriptive design describes the variables in order to answer the research question (Brink, Vander Walt & Van Rensburg 2018:96). Descriptive design was used to describe the factors that influence reproductive choices of women living with HIV in this study. More information is required from the respondents and data collection is emphasised on questionnaires.

Cross-sectional design is the design that involved collecting data from any given sample of population just once, at a specific point in time (Brink et al. 2018:97). In this study, the information was collected from the respondents at the same time. There was no identical study that was done from the same respondents.

#### *1.7.1.2 Study setting*

Polit and Beck (2014:49) define a setting as a place where the data was collected. The study setting was Nkowankowa Health Centre, Dan Clinic, Grace Mugodeni Health Centre and Letaba Gateway Clinic situated at Greater Tzaneen Sub-District in Limpopo Province as indicated on Figure 1.1.

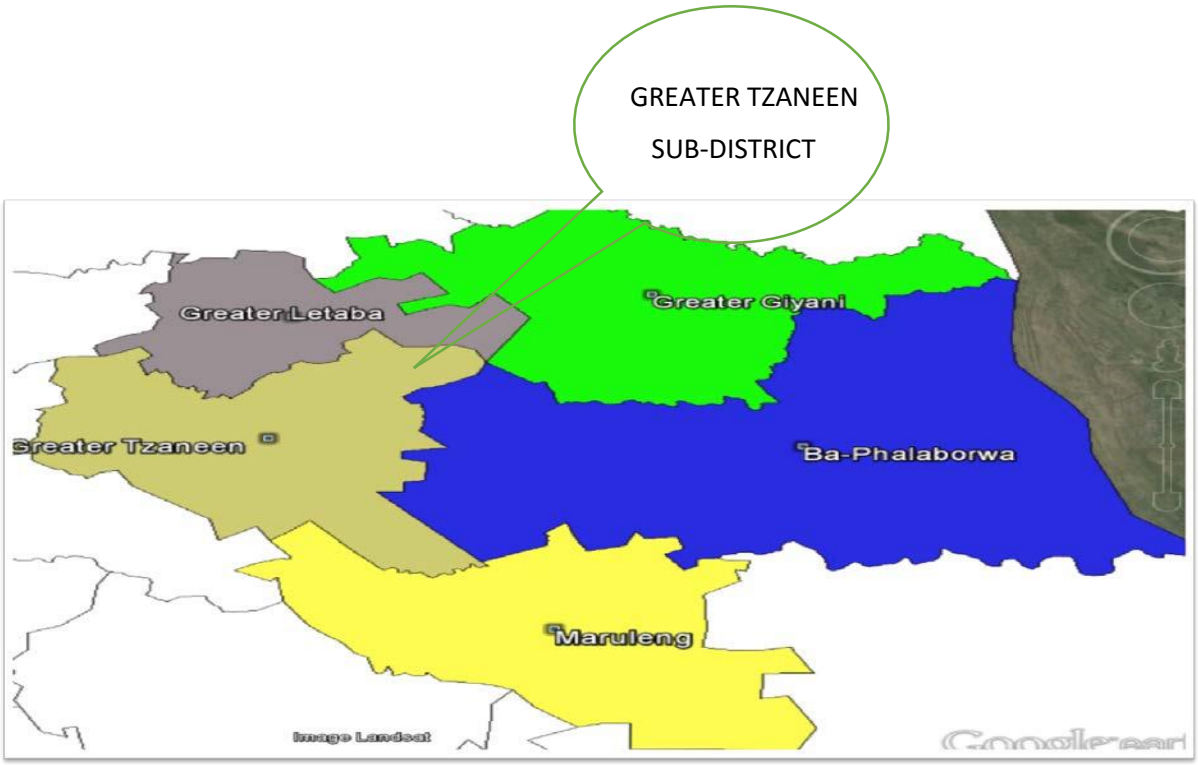


Figure 1.1: Map of Mopani District (https://municipalities.co.za)

#### *1.7.1.3 Study population*

The study population was all women receiving reproductive health care services at primary health care centre at Greater Tzaneen sub district.

#### *1.7.1.4 Sampling*

A sample is a group of people with which a research study is to be conducted (Gray et al. 2017:329). Probability or random sampling indicates that every participant in the population have an equal chance of being selected to participate in the study and it reduces biasness. Non-probability indicates that the elements in the population may not have an equal chance to participate in the study and the sampling may not accurately represent the population (Brink et al. 2018:124).

According to Brink et al. (2018:124), stratified probability sampling was used because equal sample sizes from each stratum was chosen. Stratified probability sampling helps to represent a particular segment of population e.g., all the clinics have different number of patients per day. HIV positive women were randomly selected from each clinic. The

study respondents were selected from these files by also considering the women on reproductive ages between 18-40 years, who are able to read or write in English or Xitsonga languages.

Research hypothesis is a set of assumptions about observable phenomena. It comprises of researchers' prediction or explanation between the relationships of two or more variables (Brink et al. 2014:72). In this study, the researcher wanted to understand the factors influencing reproductive choices and the perception towards these factors. The dependent variable was factors, choices and the independent variable was reproductive health.

### 1.7.2 DATA COLLECTION METHOD

Data collection is the precise, systematic gathering of information that is needed to address the research problem (Brink et al. 2018:133). Questionnaires were used as a data collection method. A questionnaire is a tool with a set of questions designed to generate the data in order to accomplish research projects' objectives (Wild & Diggines 2013:161). Close-ended questions were used and were asked in English and Xitsonga, because these are the most dominating languages in the area. The translation was done by a linguist, who translated the questionnaires into Tsonga language. Ethical issues were also explained to the respondents to ensure that their rights are protected.

The contents of the questionnaire were developed from reviewed literature. The variables contained in the questionnaire have also been used in other research studies relating to reproductive health choices of people living with HIV (Chakare 2013:71).

### 1.7.3 DATA ANALYSIS

Data analysis means categorising, ordering, manipulating and summarising the data in meaningful terms (Brink et al. 2018:165). Descriptive statistics was used which helps to explain and summarise data. Data was analysed by the researcher and a statistician. A data capturing software program, Statistical Package for the Social Science (SPSS

version 17) was used. Data was carefully checked for accuracy before analysis. The statistician used tables, bar or pie charts and percentages for interpretation of data.

## 1.8 SCOPE OF THE STUDY

This research study on the factors influencing reproductive health choices of women living with HIV, only included women attending primary health care services at Greater Tzaneen Sub-district and therefore the results will not be generalised to other clusters in the sub-district or health care institutions in the district**.** The study was limited only to HIV positive women who are receiving their ARVS at the four clinics.

## 1.9 STRUCTURE OF THE DISSERTATION

Chapter 1: This chapter presented the background of the research study and a brief introduction to research design, population and data collection.

Chapter 1: Orientation to the research study.

Chapter 2: This chapter discussed the literature review in relation to the factors influencing the reproductive health choices of women living with HIV.

Chapter 3: This chapter discussed the study design and research methodology.

Chapter 4: This chapter presented the research results.

Chapter 5: This chapter discusses the research results.

Chapter 6: Conclusion and recommendations are presented in this chapter.

## 1.10 CONCLUSION

In this chapter, background of the research, the significance of the research, the objectives of the research and the research questions were discussed. In addition, definition of terms, the research design and research method were also discussed. The next chapter consists of a review of the literature related to the research study.

# CHAPTER 2: LITERATURE REVIEW

## 2.1 INTRODUCTION

The review of literature generate a range of issues related to HIV and reproductive health. These includes the factors influencing reproductive health choices, antenatal care and maternal health, HIV and AIDS, sexually transmitted diseases, family planning and fertility services. Most research has been conducted in developed countries and was mainly on the biomedical aspects of HIV and motherhood. Very few studies were done in South Africa that addresses the social aspects of reproductive health. This chapter will explore more about factors influencing reproductive choices of women living with HIV from the existing literature.

## 2.2 HIV GLOBALLY

There were approximately 34 million people living with HIV worldwide in 2010. An amounting of 1.8 million deaths were AIDS-related (UNAIDS 2011:6). The 50% proportion of HIV positive women has remained stable globally. There are about 2.5 million new HIV infections per year. The total number of people who are eligible for HIV treatment is estimated at 14.8 million and 8 million are actually on HIV treatment (UNAIDS 2011:6). There are approximately 1.4 million pregnant women living with HIV globally, especially those with low and middle income (United Nations Children's Fund (UNICEF) 2012).

## 2.3 HIV IN SUB-SAHARAN AFRICAN COUNTRIES

In the study conducted in Sub-Saharan Africa, about 330 000 children acquired HIV infection. It was reported that the number in new infections reduced by 24% due to access to free antiretroviral therapy (UNAIDS 2012:42). Studies shows that the Southern and Eastern Africa are the regions that were affected the most by the HIV epidemic. It was also found that half of pregnant women tested HIV positive and 68% received antiretroviral therapy to prevent mother to child transmission (UNICEF 2012). In South Africa, an estimated 71.8% of sex workers acquired HIV infections in Johannesburg, 39.7% in Cape Town and 33.5% in Durban (UNAIDS 2012:09).

## 2.4 HIV PREVALENCE IN LIMPOPO

There was an estimated 21.8% HIV prevalence rate in women between the ages 15-24 years in 2014/2017 (Woldesenbet, Kufa, Lombard, Manda, Ayalew, Cheyip and Puren 2019:72). The HIV prevalence among the reproductive age population in Limpopo Province increased in 2017 as compared to 2014 statistics (Table 1.1). HIV prevalence among women attending ante-natal care increased slightly from 20.9% in 2014 to 23.4% in 2017. The HIV prevalence increased by 2.5% in 2017 in Limpopo Province. Mopani District HIV prevalence remained high with 26.6% among other districts in Limpopo (Woldesenbet et al. 2019:72).

Table 1.1: HIV prevalence among antenatal women in the Limpopo Province

| **Region** | **Year** | | | |
|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2017 |
| Provincial | 20.9% | 21.7% | 21.2% | 23.4% |
| Capricorn | 23.8% | 21.6% | 21.1% | 22.5% |
| Mopani | 22.2% | 24.5% | 24.6% | 26.6% |
| Sekhukhune | 19.9% | 22.6% | 18.1% | 23.1% |
| Vhembe | 14.0% | 16.8% | 15.0% | 14.0% |
| Waterberg | 28.2% | 25.8% | 27.3% | 35.8% |

The risk of acquiring HIV infection in young women and girls between the ages of 15 and 24 years is higher as compared to males of the same age. The female age group accounted 25% of new infections in South Africa (Limpopo Provincial Aids Council 2017:18).

The most common causes of HIV infections in South Africa are:

- The use of alcohol and drugs.

- Mobility and migration.
- Multiple concurrent and intergenerational sex.
- Cultural practices, stigma and discrimination.
- Unemployment and inequality in income and wealth.

### 2.4.1 Strategies to combat HIV

Ramkissoon, Searle, Burns and Beksinska (2018:34) reported that a set of recommendations for ensuring universal access to sexual and reproductive health services was made by United Nations Millennium projects. The services are composed of family planning, prevention of sexually transmitted diseases, safe parenting and HIV strategies. Strategies identified include:

- Appropriate education and services according to age
- Attention to partner involvement;
- Adolescent reproductive health, other life skills and education needs;
- Parental advice;
- Ensure the choice of contraceptive;
- Improving counselling;
- Discouraging early marriage;
- Eliminating female genital mutilation and other harmful; traditional practices;
- Improving access to safe abortion services;
- Reviewing legislation to protect women's health.

Limpopo Provincial Aids Council (2017:21), indicated that the factors that leads to increased HIV vulnerability are social, economic, political, cultural and environmental factors. It was recommended in the national strategic planning that every government department has a key role in addressing the structural factors driving HIV and ensuring that the strategies are being implemented. The Limpopo Province intends to spend more on HIV and TB programmes by allocating enough budget in order to achieve the target.

UNAIDS programme has established 90 90 90 Strategy to combat HIV pandemic. It was targeted that by 2020, 90% of people living with HIV know their status, 90% were started on antiretroviral (ART) and 90% are virally suppressed (UNAIDS 2012:1).

## 2.5 REPRODUCTIVE HEALTH

The human rights to access reproductive health information and services have been underlined by WHOs' strategy in reproductive health and sustainable development goals (WHO 2017:2). UNAIDS (2015:39) defines reproductive health as a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. It means that people have freedom to choose to reproduce.

## 2.6 REPRODUCTIVE HEALTH CHOICES

UNAIDS (2015:39) defines reproductive health choice as the choice made by couples or individuals to decide freely to have children or not and to have information on reproductive health and the services provided. All women have the right to make informed decisions on their reproductive health, e.g. to decide freely the number of children they want, child spacing and to have access to the information and education as a means to enable them to exercise their rights (WHO 2014).

The link between reproductive health and HIV fields can maximize the opportunities to address four distinct reproductive possibilities:

- A woman who does not wish to become pregnant should be offered family planning services.

- A woman who wants to become pregnant should be provided with education about prenatal and local infertility services. If HIV positive, education about minimising HIV infection to partners should be provided.
- A woman who is already pregnant and HIV positive should be offered antiretroviral therapy to prevent mother-to-child transmission.
- A woman who is pregnant but does not want the pregnancy should be offered education about safe abortion services.

## 2.7 REPRODUCTIVE HEALTH SERVICES/METHODS

### 2.7.1 Family planning services

A previous study done in Kenya by Njuguna, Llovi, Muiruri, Mutai, Kinuthia and Njonge (2017:1750) found that about 72.8% of the participants responded that they did not have pregnancy intention in the next two years, with only about 53.9% currently using a method of family planning. The factors which were significantly associated with the use of family planning in this study included marital status, occupation, HIV status, issuance of condoms in the clinic, pregnancy intention and whether the participant discussed contraceptive methods with the clinic staff or their partner.

### 2.7.2 Family planning services for HIV positive clients in South Africa

The Department of Health (2012:9), indicated in the National Contraception Clinical Guidelines the need for constant promotion of dual method, including the use of barrier methods for males and females, in combination with all other contraceptive methods need to be emphasized. All HIV positive clients who wish to avoid pregnancy should consider the use of dual contraceptive method as their choice to prevent unplanned pregnancy. In addition, consistent use of male or female condoms is encouraged to prevent STI and HIV transmission between partners.

Guideline for contraceptive use for HIV positive women as indicated in National Contraception Clinical Guidelines (2012:72) are indicated as follows:

#### *2.7.2.1 Hormonal contraceptives*

Hormonal contraceptives can be used by the majority of HIV positive women to prevent unwanted pregnancies. Progestogen-only injectable and implants are highly effective contraceptives.

#### *2.7.2.2 Intrauterine devices or systems*

Intrauterine contraceptives such as Intrauterine device (LOOP) is a long acting reversible methods that can be used by most HIV positive women to prevent unwanted pregnancy, provided they are clinically well on antiretroviral treatment.

#### *2.7.2.3 Sterilisation*

Male or female sterilisation is appropriate only for individuals or couples who are sure that they never wish to have more children in the future and who have considered the implications thoroughly. An informed decision making should be done. e.g. Vasectomy and Tubal Ligation.

#### *2.7.2.4 Condoms*

All women at risk of HIV and those living with HIV should be strongly encouraged to use condoms consistently and correctly. They should also be counselled about additional HIV preventive measures, which include awareness of one's own and one's partner's HIV status, ART for treatment of HIV positive individuals, diagnosis and treatment of STIs, and a reduction in the number of sexual partners.

### 2.7.3 Termination of pregnancy (TOP) and miscarriage services

TOP is the removal of the contents of the uterus of a pregnant woman by medical or surgical means. According to the Termination of Pregnancy ACT, as indicated in Health Systems Development Unit (2010:259) a pregnancy is terminated:

- During the first 12 weeks of the gestational period of a pregnancy, on request of the pregnant women.

- From the thirteenth week up to and including the twentieth week, or after the 20th gestational period, if a medical practitioner, after consultation with the pregnant woman, is of the opinion that the pregnancy would pose a risk of injury to the woman's health, the foetus would suffer from severe abnormality, the pregnancy resulted from rape or incest or the pregnancy would affect the social or economic circumstances of the women.

When women attend a health care facility and request a TOP, the recommended protocol is as follows (Health Systems Development Unit 2010:259):

- Initial consultation with primary care provider, which includes history taking, urine pregnancy test and determining the gestational age from the date of the last menstrual period and a bi-manual examination for assessment of uterine size.
- Pre-TOP counselling.
- If gestational period is assessed to be less than 12 weeks, the TOP can be done at the primary level if there is a doctor or registered nurse certified to perform TOPs at a facility.
- TOPs at over 12 weeks should be referred to the nearest 4-hour health facility.
- Give post-TOP counselling, including discussion on the various forms of contraception available to prevent pregnancy and sexually-transmitted diseases.

According to the National Department of Health (2018), miscarriage is the bleeding from the vagina that occurs at less than 20 weeks of gestation. Classification of miscarriage is as follows:

- Threatened miscarriage

  The women present with mild vaginal bleeding, cervix is closed on digital examination and the foetus is still available in the uterus.
- Complete miscarriage

  There is complete passage of all products of conception and the pain and bleeding settle after.
- Invertible miscarriage

There is moderate vaginal bleeding associated with lower abdominal pains. The cervix is dilated on digital examination and the foetus still in the uterus.

- Incomplete miscarriage

  There is vaginal bleeding with some blood clots. The cervix is open and there is partial expulsion of products of conception.

### 2.7.4 Treatment of sexually transmitted infections

Sexually transmitted infections are infections that are passed from one person to the other through sexual contact and the side of infection is usually (but not always) the male or female genitals. There are several types of STIs which includes syphilis, genital herpes, gonorrhoea, genital warts, HIV etc. (Health Systems Development Unit 2010:49). The signs and symptoms of STIs as indicated in Health Systems Development Unit (2010:51) are as follows:

- A sore or sores on the external genitals.

Sore on the genitalia are usually caused by sexually transmitted infections. These includes herpes zoster, syphilis and chancroid.

- Abnormal discharge from penis or vagina.

Abnormal discharge from vagina or penis may be foul smelling yellowish or greenish discharge chunky in consistency, caused be a bacterial infection.

- Burning micturition.

Burning micturition is a burning sensation with urination caused by bacterial infection of urinary tract system. It can be caused by infections including STIs or STDs.

- Swollen inguinal lymph nodes.

Swollen inguinal lymph nodes is the swelling of the lymph nodes in the groin caused by STIs and cancer.

- Abscess on the Bartholin’s gland.

Bartholin’s abscess can occur when one of the Bartholin’s glands located on either side of the vaginal opening develop an infection. A cyst will form and develop abscess.

- Skin rashes.

Outbreak of red, bumpy, scaly or itchy patches of skin possibly with blisters or welts.

- Warts on the genitals.

A small bump on the genitals caused by a common sexually transmitted infection.

According to Department of Health (2015:04), sexually Transmitted Infections Management Guidelines describes that a proper history taking should be done to help perform a proper clinical assessment. The questions to be asked should concern symptoms, recent sexual history, sexual orientation, type of sexual activity (oral, vaginal, anal sex), the possibility of pregnancy (females) and use of contraceptives including condoms.

Women are faced with a serious challenge around decision making regarding when to have and how to have sex. Legal and social sanctions can act as barriers to accessing information and counselling on safer sex (WHO 2017:74). Screening of patients in all health care visits can promote STI prevention, and an opportunity for health promotion and education can be provided (Department of Health 2015:4).

#### *2.7.4.1 Guidelines for treating STI as indicated in Sexually Transmitted Infections Management Guidelines includes:*

- HIV counselling, education and testing.
- Condom promotion, provision and demonstration to reduce the risk of STIs.
- Compliance or adherence to treatment.
- Contact treatment/partner management.
- Circumcision promotion with appropriate counselling concerning condoms.
- Contraception and conception counselling (Department of Health 2015:4).

## 2.9 REPRODUCTIVE HEALTH AUTONOMY

The decision making made by women for their health is still weak. The study showed that most women don't make decisions regarding their reproductive health choices, they are decided by their partners. The study further show that women from rich families or

with high socioeconomic level have more autonomy over decision making on their health (Sougou, Bassoum, Faye & Leye 2020:5).

It is the right of women to make autonomous decisions regarding their own body. The women's human rights include the rights to equity, dignity, autonomy, information and respect for private life including sexual and reproductive health. A decision whether to continue with a pregnancy or terminate it it's a women's choice (Raday, Facio, Zeliska, Chandrakirana & Aouij 2017:1).

## 2.10 FACTORS INFLUENCING REPRODUCTIVE HEALTH CHOICES

### 2.10.1 Social factors

The study by Carlson-Lalloo, Rusner, Mellgren and Berg (2016:64) shows that stigma and psychological problems make the burden of HIV heavy. Carison-Lallo et al. (2016:64) further indicated that spiritual beliefs and getting social support was regarded as important for emotional sustenance and affirmation.

In the study conducted by Van Zyl and Visser (2015: 06) at Tshwane, the results gave a representation of the PLHIV at childbearing age. The reproductive desires and intensions were influenced by gender inequality and procreation rules for PLHIV in the community. The participants desired to have children of their own in order to be accepted by the community and to maintain their dignity despite the HIV risk.

Women living with HIV disclosed their HIV status to their family members and received support from them. The acceptance helped them to gain confidence to work on their wellbeing and to adhere to treatment. Some women who disclosed their status to their partners before marriage have been accepted by their partners (Dyah 2020:149).

Discrimination towards people living with HIV has reduced as indicated in the UNAIDS report on population survey. In the data collected between 2009 and 2019, 50% of people reported that they will not buy goods from HIV positive people (UNAIDS 2016:10).

Most HIV positive respondents in the study conducted at Tshwane reported that they wish to have children, but they are discouraged by the community's discrimination against HIV-positive women who are bearing children (Van Zyl et al. 2015:438). The women are expected to have children in order to be accepted but they are being considered irresponsible for becoming pregnant while HIV positive, these causes dilemma for HIV positive women. It was further reported that HIV positive women did not disclose their statuses to their partners because they fear the rejection by their partners and community. Some blame their partners for not wanting to use a condom (Van Zyl et al. 2015:438).

HIV women who discussed with their partners about reproductive health issues were able to use modern contraceptives than others. Couple communication also helped to reduce loss to follow-up at antiretroviral (ART) programs (Damian, Johnston, Erick, Beatrice & Sia 2018:4).

Stigma and discrimination are the most barriers women living with HIV are faced with in achieving their reproductive health needs. They face judgment made by their families and community regarding their sexual behavior. As a result, women's willingness to disclose their status is affected. Some women living with HIV report rejection of sexual relations because of their HIV status and they think their partners may find them unattractive if they disclose their HIV status (Amin 2015:2).

### 2.10.2 Economic Factors

Agbo et al. (2017:44) conducted a study at Ekurhuleni District in South Africa which revealed that women do not want to have children because they already had children, they do not have financial support and they fear to bear a baby with HIV. More than 10% of HIV positive women reported that they desire to have their own children, but they are denied access to health care services and employment as indicated in the stigma survey that was conducted in 65 countries (UNAIDS 2016:10).

Many women die every year and that could have been avoided by low cost improvement in health care (Zahan 2014:46). Poverty and reproductive role expose HIV positive

women to health risks (Zahan 2014:46). Abortion that leads to death and permanent damage can be avoided by safe and affordable contraceptive methods (Zahan 2014:46).

Women are facing inequality with regard to control over economic resources in the form of lack of ownership to land and other properties. Women living with HIV are denied their inheritance and property by relatives after the death of their husbands which contributes to food insecurity and in turn increases sexual risks taking (Amin 2015:2).

HIV policies have often failed to address gender inequalities which contributes to discrimination against women. These policies failed to address the reason for men's lower access to HIV services. Women are tested during maternal and child health services. They know their status as compared to men. They are afraid to disclose their status and advocate for condom use because they fear violence that may occur as a result (Amin 2015:2).

Women living with HIV reported that health care providers enforce compulsory formula feeding for baby which raised financial concerns due to the cost of purchasing the formula milk. Limited number of facilities providing perinatal services for women living with HIV cause difficulty in accessing comprehensive and adequate services (Juliastuti, Dean & Fitzgerald 2020:7).

Availability of safe abortion services in Iran for women living with HIV has led to many women consider abortion as the best option instead of using modern contraceptive methods, these relieved stress associated with unintended pregnancies (Juliastuti et al. 2020:7).

### 2.10.3 Cultural factors

According to National Department of Health, a survey was conducted in Pretoria on antenatal HIV and syphilis which shows that discrimination and stigma causes a greater risk of HIV infection between women and girls in many countries. Women are unable to express their feeling towards abstinence and condom use because they fear for threats

of violence and be blamed for causing the HIV infection (National Department of Health 2013:4).

Many women and children die during childbirth. The major global health challenges are violence against women and harmful traditional practices (WHO 2017:2). Gender inequalities has a negative influence on poverty and lack of education on women's health (Zahan 2014:46).

In a study conducted in Iran, it is highlighted that married women are not expected to use condoms. As a result, they are unable to disclose their HIV status and to advocate for condom use because of fear of violence and stigma. Women living with HIV are faced with stress because traditionally they are expected to breastfeed their babies, and the experience stigma from relatives and community if they don't bread feed (Juliastuti et al. 2020:7).

### 2.10.4 Knowledge on available reproductive health methods/services

The study by Agbo et al. (2017:80) found that people living with HIV expressed the desire to have children and that they have limited knowledge on the available reproductive health services. In another study conducted by Olandotum (2012:29) in Comfimvanda, the choice of contraceptive method was influenced by pregnancy desire and intensions, the state of being sick or healthy and by the family, social or cultural pressures for a woman to bear children.

Murimba (2014:84) conducted another study in Zimbabwe which revealed that adolescents who are HIV positive have inadequate knowledge about contraceptive methods and HIV/AIDS, which impacts negatively on their decisions to sexual and reproductive issues. The participants in this study reported challenges related to disclosure and discussing condom usage, judgemental attitudes of health workers and not providing them with relevant information.

Education on reproductive health issues equip women with important information which empowers them to make informed decisions regarding their reproductive health (Darten, Dickson & Doku 2019:7).

### 2.10.5 Attitude of health professionals responsible for provision of reproductive health services

Health care providers involved in reproductive health and HIV care are qualified, experienced and they provide the necessary support to clients (Bharat & Mahendra 2007:94). Studies shows that health care providers have influence on reproductive health choices of their clients. However, people living with HIV are not free to discuss their reproductive desire with health care providers (Agbo et al. 2017:2).

Women received enough support from health care providers. They treated them professionally with dignity and respect. While some women reported stigmatisation towards them especially in private hospitals (Dyah 2020:151).

Health care providers should offer counselling and contraceptive method to all women. The client's choice should be offered immediately (National Contraception Clinical Guidelines 2012:10). Women living with HIV have been forced to make involuntary abortion due to social pressure. Women with HIV are given consent forms to sign under pressure for sterilization without proper discussion and some have had family members asked to provide consent on their behalf (World Health Organisation 2017:70).

The attitude of health care providers on HIV positive women who want to become pregnant continue to be documented in the peer reviewed literature. Health care providers play an essential role in providing information, support and help in identifying best contraceptive options to HIV positive women (MacCarthy, Rasanathan, Ferguson & Gruskin 2012:128).

The discussions by Van Zyl et al. (2015:438) also revealed that the attitude of HIV counselling providers towards people receiving antiretroviral treatment is different. The

HIV counsellors are supportive to HIV women and they do not even advise them about family planning.

In a study conducted by Columbini, Mutenwa, Kivunaga, Moore and Mahew (2014:8), many women reported that they experienced stigma, which is aggravated by lack of proper and accurate information on safe breast feeding practices. The stigma can lead to less disclosure of HIV Positive diagnosis and unsafe practices, and can be prevented by providing accurate information to clients and maintaining confidentiality. The women also expressed that stigma and fear to disclose can be reduced by having a single health care provider (Columbini et al. 2014:8).

Health care providers discourage women living with HIV to bear children and they are blamed of being irresponsible if the get pregnant (Amin 2015:2). Limited information on contraception use and shortage of contraceptive options results in poor understanding and usage of different methods suitable for women living with HIV health care providers (Juliastuti et al.2020:7).

## 2.11 CONCLUSION

Relevant literature has been reviewed in this chapter. The research methodology and design will be discussed in the next chapter which also includes the study population study sample, data collection and analysis.

# CHAPTER 3: RESEARCH DESIGN AND METHOD

## 3.1 INTRODUCTION

This chapter describes the research methodology and design which also includes the study population study sample, data collection and analysis.

## 3.2 RESEARCH DESIGN

A quantitative, descriptive and cross-sectional research study was conducted in order to determine the factors influencing reproductive choices of women.

### 3.2.1 Quantitative approach

Researchers in a qualitative study use methods designed to control the study, decrease bias and increase validity (Brink, Vander Walt & Van Rensburg 2014:12; Polit & Beck 2014:16). Quantitative research is highly positive, objective and no interference from the researcher (Brink et al. 2014:12; Polit et al. 2014:16). The structured method is used to collect data. Data is collected as planned by using numbers. The approach is highly structured, and makes it easier for the researcher to measure and analyse data (Brink et al. 2014:12; Polit et al. 2014:16).

The design helped the researcher to conduct data collection in a short period of time. Quantitative approach was chosen for this research study because numerical data provides a sample number to answer the research question on factors influencing reproductive health choices (Brink et al 2014:12; Polit at al 2014:16).

### 3.2.2 Descriptive design

Descriptive design describes the variables in order to answer the research question, and there is no intention of establishing cause-effect relationships (Brink et al. 2014:112). In this study, descriptive design was used to describe the factors influencing reproductive health choices.

### 3.2.3 Cross sectional design

Cross-sectional design is the design that involves collecting data from any given sample of population just once and is done at a specific point in time (Brink et al 2014:101). In this study, information was collected from the respondents on the same day in each facility. The study will not be repeated after a specific time from the same respondents.

## 3.3 RESEARCH METHOD

Data collection is the collection of data systematically to address a research problem (Brink et al 2014:147). In this subsection, population and setting, sampling, data collection and data analysis will be discussed.

### 3.3.1 Setting and population

Setting refers to the specific place or places where the data are collected (Brink et al. 2014:59). The study setting was Nkowankowa Health Centre, Dan clinic, Grace Mugodeni Health Centre and Letaba Gateway Clinic situated at Greater Tzaneen Sub-District in Limpopo Province. According to Mopani District Health Plan, these are dedicated HIV clinics that attend to a large number of women living with HIV and they are serving some communities from the farms. Community health centres and clinics have an average head count per day of ±20 HIV positive patients or ±400 patients per month (Department of Health 2018:12).

Population is a group of individuals in which a research study will be collected (Grey et al. 2016:250). In this research study, the study population was all women receiving reproductive health services at Greater Tzaneen Sub district.

### 3.3.2 Sampling

Sampling is the selection of study participants at an equal interval (Brink et al. 2014:137). Stratified probability sampling was used because non-equal sample sizes from each stratum was chosen. e.g., all the clinics have different number of patients per day therefore, it would be appropriate to choose sample size from each clinic proportionally.

The sampling pool consisted of all women living with HIV, aged between 18-40 years, who attend reproductive health services at primary health care services at Greater Letaba Sub district. Letaba Gateway Clinic, Nkowankowa Health Centre, Grace Mugodeni Health Centre and Dan Clinic were selected because they are from the same cluster and they are well resourced and provide comprehensive reproductive health and ARV services.

According to Brink et al. (2018:124), stratified probability sampling was used because equal sample sizes from each stratum was chosen. Stratified probability sampling helps to represent a particular segment of population e.g., all the clinics have different number of patients per day. Therefore, it would be appropriate to choose sample size from each clinic proportionally. The sample consisted of all HIV positive women, aged between 18-40 years, who attend reproductive health services at primary health care centres at Greater Tzaneen Sub district. Letaba Gateway Clinic, Nkowankowa Health Centre and Dan Clinic were selected because they are from the same cluster and they are well resourced, and provide comprehensive reproductive health and ARV services. All female patients aged 18 to 40 years were selected by using the files at the selected clinics with the help of administration clerk. All women had an equal chance of being selected.

HIV positive women were randomly selected from each clinic. The study respondents were selected from these files by also considering the women on reproductive ages between 18-40 years. Questionnaires were given to the respondents who are able to read or write in English or Xitsonga, they were then asked to answer in the absence of the researcher and submit questionnaires after completion. The study aimed to recruit 150 respondents but managed to find 93 respondents. From the 93 HIV positive women who participated in the study, 10 had incomplete data. Total sample constituted 83 respondents, in which questionnaires were satisfactorily returned.

Inferential statistics is the branch of statistics whereby hypothesised relationships between variables can be tested using probability. Inferential statistics was used to allow inferences to be done from the sample to the population (Mcintosh et al. 2014:144).

The sample size calculation is as follows:

$$n = \frac{1.96^2\sigma^2}{E^2} \quad (1)$$

Where:

n = sample size

1, 96 = confidence interval

E = Error rate

$\sigma$ = Standard deviation

Thus;

$$n = \frac{1.96^2 25^2}{4^2} = 150$$

Therefore, the total number of HIV positive women needed for this research study were 150 in all the Clinics (*Table*1.2). The researcher used 10% of the population from the selected cluster/clinic to calculate sample size.

Table 1.2: Sample size calculation

| Sites/clusters | Population | Percentage | Number of sample |
|---|---|---|---|
| Clinic A | 600 | 10.00 | 60 |
| Clinic B | 200 | 10.00 | 20 |
| Clinic C | 455 | 10.00 | 45 |
| Clinic D | 150 | 10.00 | 15 |
| **TOTAL** | **1 405** | **10.68** | **150** |

Polit et al. (2012:742) define sample size as the number of people who participate in a research study. The patient's files were selected at the reception with the help of administration clerk to identify all women living with HIV and to ensure that their HIV status is not revealed to other patients. A sample of 150 respondents was targeted for this study.

Each patient who attended the ART clinic on the day of sampling and who met criteria was given a chance. The 150 target was not met because some of the patients were not interested to participate in the study. The researcher was able to collect data from 83 respondents.

#### *3.3.2.1 Ethical issues related to sampling*

The researcher explained the purpose of the research study to the respondents and a consent form was signed afterwards (Annexure K). Respondents were informed that their participation in the study was voluntary and that they could withdraw from participating in the study at any time. No penalties were incurred to those participants who did not participate in the study and that there were no monetary incentives to be given to them.

#### *3.3.2.2 Sample*

A sample is a selected group of people who participate in a study. Sampling involves a group of people, events, objects, or other elements with which to conduct a study (Burns & Grove 2015:249).

**Inclusion criteria:**

The sample consisted of

- All women living with HIV
- Aged between 18-40 years
- Who attend a primary health care at Letaba Gateway Clinic, Nkowankowa Health Centre, Grace Mugodeni Health Centre and Dan Clinic, Greater Letaba Sub-district in Limpopo Province

**Exclusion criteria:**

- HIV negative women
- HIV positive men
- Mothers who had not signed an informed consent form
- HIV positive women under the age of 18 years were excluded because they cannot give legal consent due to age

- HIV positive women who denied participation and who cannot read or write

### 3.3.3 Data collection

Data collection is the collection of data systematically to address a research problem (Brink et al. 2014:147).

#### *3.3.3.1 Data collection approach and method*

Questionnaires were used as a data collection instrument. A questionnaire is a set of questions formulated to help generate data to accomplish the objectives of the research study (Wiid & Diggines 2013:161). Close-ended questions were developed in line with the research objectives and were asked in English and Xitsonga because these are the most dominating languages in the area. The contents of the questionnaire were developed and validated from reviewed literature and WHO relating to reproductive health of people living with HIV. A linguist did the translation of the questionnaire from English to Xitsonga. The questionnaire was distributed by the researcher at the site.

#### *3.3.3.2 Characteristics of the data collection instrument*

The questionnaire covered the following domains: Demographic data, factors influencing reproductive health choices of HIV positive women, the attitude of health care providers and perceptions of women living with HIV on factors influencing their reproductive choices (Annexure A and B).

#### *3.3.3.3 Data collection process*

The researcher communicated with clinic managers to set the date for data collection. During the days of data collection, the researcher, through the help of a nurse at the study site, identified respondents who met the criteria, and they were then asked to meet the researcher in a quiet and comfortable area. The researcher introduced herself to the respondents and the respondents were given an opportunity to introduce themselves. The aim of the study and ethical issues such as confidentiality and privacy were explained to the respondents.

The respondents were told that the information obtained would be used only for the purpose of this study. The respondents were then given a consent form to sign as an agreement to participate in the study and an information sheet that detailed the purpose and significance of the study. Any misunderstanding was explained by the researcher. The respondents were never subjected to physical examination. Only information about the research topic was gathered. The researcher administered the questionnaire, which many respondents preferred English language questionnaire (Annexure A). The researcher administered the Xitsonga Language (Annexure B) questionnaire were patients cannot read English language. The respondents were encouraged to give honest responses. At the end, the researcher thanked the respondents for their participation in the study. The researcher collected the completed questionnaires on the same day of data collection and they were allowed to ask questions. Data was collected from 15 to 18 January 2018 and 11 to 15 June 2019.

#### *3.3.3.4 Methods to ensure validity and reliability*

##### *3.3.3.4.1 Pre test*

Pre-test is referred to as a small scale study conducted before the main study to identify the possible flaws that could cause severe consequences of the proposed study (Brink et al. 2014:161). The questionnaire was pre- tested on 05 participants before being used for the study to ensure that it measures what it is supposed to measure. During pretesting the questionnaire was checked for its clarity and understandability. The questionnaire was also checked for its completeness and omissions by the researcher.

##### *3.3.3.4.2 Reliability*

Reliability refers to the consistency with which an instrument measures the attribute (Polit et al. 2012:305). Reliability was ensured by questioning simple, well understood questions relevant to the study and the questions for each construct were asked in the same direction. Responses from piloting were inconsistent. Therefore, corrections were made, based on the feedback received. The questionnaire was completed in a private room to ensure that privacy and confidentiality is maintained.

In this study, reliability of the measurement instrument was done only on questions related to attitudes of health care professionals.

*3.3.3.4.3 Validity*

Validity is a determination if the instrument measures what it is supposed to measure (Gray et al. 2017:375). In this study, validity was ensured by asking questions that answer the problem statement and was ensured by accurate translation of questionnaire from English to Xitsonga.

The researcher did pre-testing to check if the intended variable factors and perceptions were measured. The questionnaire was administered in the language that respondents understood and translation of Xitsonga answers was done by a linguistic. The researcher ensured that the instrument measured the factors influencing reproductive health choices of HIV positive women. The instrument's validity consists of content, face and construct validity.

**Content Validity** is an assessment of how well an instrument represents all components of the variable to be measured, and always precedes data collection (Brink et al. 2018:152). In this study, the instrument was presented to a supervisor and statistician to evaluate its content validity.

**Face validity** is a subjective assessment that is done to verify if the instrument measures what is supposed to measure (Gray et al. 2017:376). The respondents were willing to complete the questionnaire because they perceived that the questionnaire measures what they agreed to provide information on.

**Construct Validity** is the degree to which a study measures all aspects of the concept it purports to measure (Gray et al. 2017:381). The researcher used construct validity to explore the relation between the instruments' results and the underlying theory (Brink et al. 2018:154).

**3.3.3.5 *The quality of the research design***

Internal validity refers to the degree to which an experiment's outcomes can be manipulated (Brink et al 2018:93). The researcher was firm in application of quantitative methods as outlined in this document.

External validity refers to the degree to which a study's results can be generalised (Brink et al. 2018:94). Polit et al. (2014:728) define external validity as it concerns inferences about the extent to which relationships observed in a study hold true over variations in people and setting, as well as over variation in treatment and outcomes. The respondent's inclusion was done in different settings under various conditions. The observation made on the study was also compared with other observations in different studies.

#### *3.3.3.6 Ethical considerations related to data collection*

Research ethics is the ethics of planning, conducting and reporting on research (Polit et al. 2014:214). The rights of individuals participating in the study should be protected (Polit et al. 2014:214).

##### *3.3.3.6.1 Protecting the rights of institutions*

The researcher has an obligation to the discipline of science to conduct and report research. The UNISA Research Ethics Committee granted ethical clearance before commencing with data collection. Permission to access respondents was given by the Limpopo Department of Health. Permission letters were submitted to the District Manager of Mopani District and the Operational Managers of the Primary Health Centres.

Information was kept confidential by keeping questionnaires in a locked cupboard to prevent unauthorised access. The respondents were told by the researcher not to write the name of the clinic on the form when completing questionnaires (Polit et al. 2014:215).

##### *3.3.3.6.2 Protecting the rights of respondents*

**Principle of respect for persons**

The principle of respect for persons recognises a person as unique and free individual. It includes of the following:

- Autonomy

Autonomy refers to the right of an individual to determine what activities they will or will not participate in (Polit et al. 2014:215). The respondents were informed about the process of research, the research problem, the purpose of the study, the objectives of the study and the benefits of the study. The researcher treated the respondents with dignity and recognised their autonomy. The respondents were given the freedom to participate in or to withdraw at any time. An informed consent was obtained from respondents to allow voluntary participation.

- Confidentiality

Confidentiality means that the information shared by the respondents must not be shared with others without approval of the respondents (Gray et al 2017:170). Any information provided by the respondents will not be displayed in public or the information will not be in way that the respondent can be identified (Polit et al. 2014:215). Confidentiality was maintained at all times. The questionnaires were kept in a locked cupboard and only the researcher has access to the information.

- Anonymity

Anonymity means that even the researcher cannot link a subject's identity to that subject's individual response (Gray et al. 2017:170). Anonymity was ensured by not using respondents' names on the questionnaires.

**The principle of beneficence**

The principle of beneficence refers to a duty to minimise harm and maximise benefits (Polit et al. 2014:216). The benefits of this study includes improved service delivery and was explained to respondents. No harm to respondents was experienced as a result of participation in the study.

**The principle of justice**

The principle of justice means that the respondents should be selected and treated with fairness (Brink et al. 2018:30). The respondents were respected and honoured as agreed

with the researcher. All respondents meeting the selection criteria were given an equal chance to participate in the study (Polit et al. 2014:216).

#### *3.3.3.7 Scientific integrity of the researcher*

The guidelines for conducting a quantitative research study from both the UNISA and supervisor were followed by the researcher. The researcher is a professional nurse and the ethics of nursing were followed. Several relevant research publications were consulted. The sources used were acknowledged and cited by the researcher accordingly. As a researcher, honesty was kept because collecting objective data in a socially responsible way is basic to scientific research. The researcher ensured that no participant was involved in the research before getting informed consent and the researcher gave all necessary information to the respondents regarding the consent form. As indicated in the proposal to reduce plagiarism and fabrication. The supervisor checked all the documents regarding the study for fabrication and plagiarism. The same questionnaire that was approved by the Provincial Department of Health Ethics Committee was used.

### 3.3.4 Data management

Data was entered, cleaned and explored using the Statistical Package for the Social Science (SPSS version 17) software. The data cleaning process was done to check and correct data. Data collected was kept in a locked cupboard for privacy.

### 3.3.5 Data analysis

Data analysis is the process of categorizing, ordering, manipulating and describing data for it to have meaning (Brink et al. 2014:177). Statistical Package for the Social Science (SPSS version 17) was used to process raw data. Data was checked by the researcher and statistician for accuracy before data analysis. The statistician used frequency tables to present the data. Interpretation of data using tables and percentages was done.

#### *3.3.5.1 Descriptive statistics*

Descriptive statistics describe the overall distribution of scores during data analysis and the primary stage in the analysis of data is to describe it (Salkind 2012:162). The researcher will have knowledge of what the data looks like Salkind (2012:392) states that descriptive statistics measures the distributions and variability of scores.

The frequency distributions were used by the researcher to check how many responses fall in the same category. Frequency refers to the number of times a result occurs, and referred as a systematic arrangement of the lowest to the highest scores and the number of times the score occurs (Brink et al. 2018:167; Polit et al. 2014:382).

The researcher used measures of central tendency to communicate the overall summary. A measure of central tendency is a statistic that represents the centre or middle of a frequency distribution (Gray et al. 2017:537). There are three types of measures of central tendency, which are mode, median and mean. Mode is the most frequent occurring score in a distribution whereas the mean is the sum of all scores divided by the number of scores (Gray et al 2017:537). The median is the point in the distribution above which and below which 50% of all cases fall (Gray et al. 2017:537). The researcher frequently used the median as a measure of central tendency in a distribution. The median was used by the researcher because it is more robust value of central tendency and can be used to describe ordinal, interval and ratio data.

The mean and mode are descriptive statistics that describe one variable at a time (Polit et al. 2014:389). The researcher used bivariate descriptive statistic to establish relationship between variables. Custom tables were also used to describe the mean and median in some sections. In this study, contingency tables were used to determine relationships between variables (Brink et al. 2018:176).

The researcher used bar charts and pie charts to describe the frequency and proportionate of factors influencing reproductive health choices of HIV positive women.

## 3.4 CONCLUSION

This chapter had described the research methodology, sampling, study site and data collection. In the next chapter, study findings will be presented and discussed

# CHAPTER 4: PRESENTATIONS OF THE RESEARCH RESULTS

## 4.1 INTRODUCTION

The chapter starts by describing the sample before descriptive statistical tests of Sections B and C of the questionnaire. After descriptive statistical analysis, inferential test results are reported. These are one-sample t-tests, independent sample t-tests and one-way ANOVA.

In this chapter, the results of data analysis processes that were done using Statistical Package for Social Sciences Version 17 (SPSS.17) are reported.

## 4.2 RESEARCH RESULTS

### 4.2.1 Sample description

The researcher used random sampling to recruit 150 respondents but only managed to find 93 respondents. Out of 93 HIV positive women who participated in the study, 10 had incomplete data resulting in a total sample of 83 females between the ages of 18 and 40. All the 83 females were classified as being African by race.

### 4.2.2 Sample distribution by age

*Figure*1.2 shows this sample's distribution by age. In the sample of 83 respondents, 20 (24.1%) were aged between 18 to 20 years; 28 (33.7%) were between 21 and 35 and the remaining 35 (42.2%) were between 36 and 40 years old.

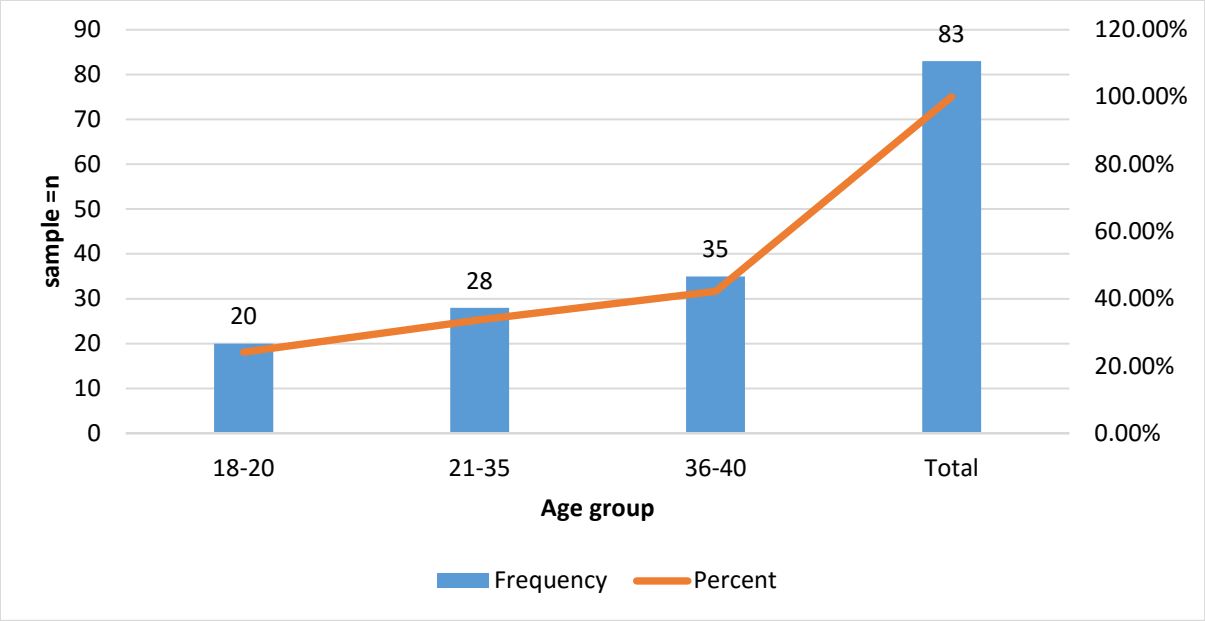


Figure 1.2: Sample distribution by age

### 4.2.3 Sample demographic summary

*Table* 1.2 further summarises the sample's key demographics by frequency and percentages.

Table 1.3: Sample demographic summary

| Variable | Response | n | Percent |
|---|---|---|---|
| Level of education | Never | 8 | 9,6% |
| | Primary | 12 | 14,5% |
| | Secondary | 49 | 59,0% |
| | Tertiary | 14 | 16,9% |
| | **Total** | **83** | **100,0%** |
| Employment status | Employed | 21 | 25,3% |
| | Unemployed | 54 | 65,1% |
| | Schooling | 6 | 7,2% |
| | **Total** | **83** | **100,0%** |
| Average monthly household income | <R500 | 2 | 2,4% |
| | R501-R1000 | 14 | 16,9% |
| | R1001-R1500 | 13 | 15,7% |
| | R1500-R2000 | 24 | 28,9% |
| | >R2000 | 30 | 36,1% |
| | **Total** | **83** | **100,0%** |
| Residence | Town | 2 | 2,4% |
| | Village | 58 | 69,9% |
| | Suburb | 23 | 27,7% |
| | **Total** | **83** | **100,0%** |

#### *4.2.3.1 Level of education*

Out of the 83 respondents, 8 (9.6%) did not have any level of education; 12 (14.5 %) had reached primary school level as their highest educational level; 49 (59%) had reached secondary school. The remaining 14 (16.9%) had reached tertiary level.

#### *4.2.3.2 Employment status*

Amongst the 83 respondents, 21 (25.3%) were currently employed, 54 (65.1%) were unemployed and 6 (7.2%) were reported as still being in school.

#### *4.2.3.3 Income*

Income data collected showed that 2 (2.4%) of the sample had an average household income less than R500 a month. Also, 14 (16.9%) had between R501 to R1000; 13 (15.7%) between R1001 and R1500 and 30 (36.1%) over R2000 as average monthly household incomes.

#### *4.2.3.4 Residence*

Out of 83 respondents, 2 (2.4%) lived in a town; 58 (69.9%) lived in a village and 23 (27.7%) lived in a suburb.

### 4.2.4 Religion and reproduction

*Figure* shows the sample's responses to questions on religious status. 73 (88%) of the respondents classified themselves as Christian and the remaining 20 (12%) as non-Christian. Also, 74 (74.7%) of the respondents did not believe that their religion influenced their decision on whether to reproduce or not while 21 (25.3%) stated that it had.

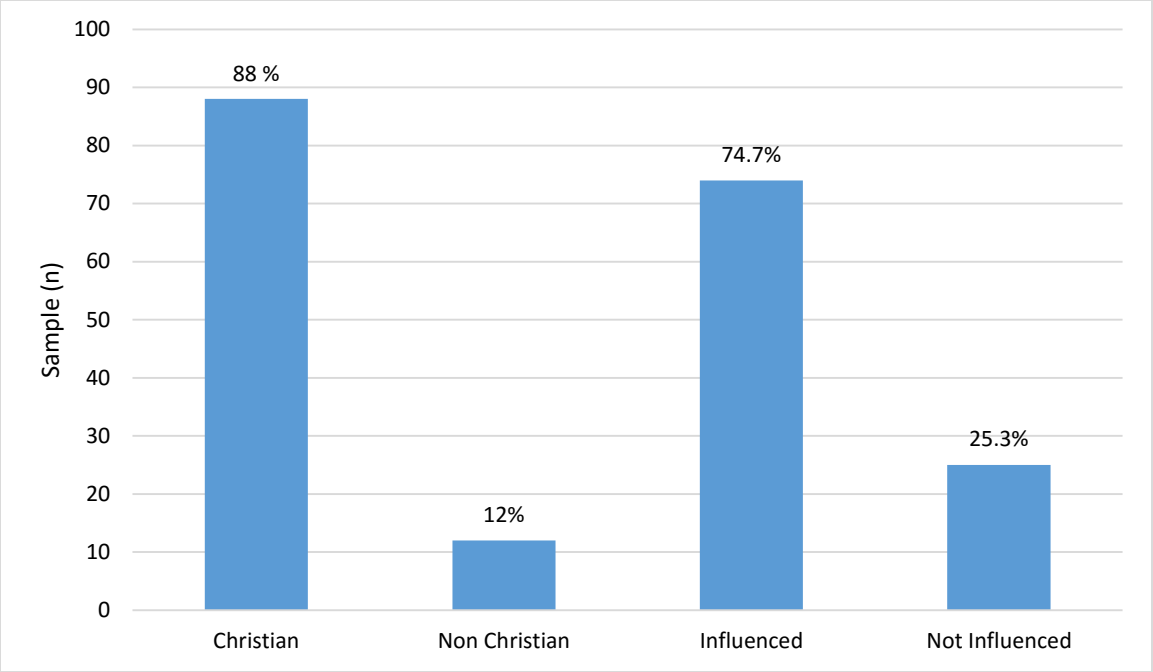


Figure 1.3: Religion and reproduction

### 4.2.5 Relationship status

*Figure* 1.3 shows the relationship status of the 83 respondents in the sample. Amongst the 83 respondents, 36 (43.4%) were reported as being “never married,” 33 (39.8%) as being in a “stable (non-marital) relationship,” 12 (14.5%) as being married; 1 (1.2%) as being divorced and another 10 (12%) as being widowed.

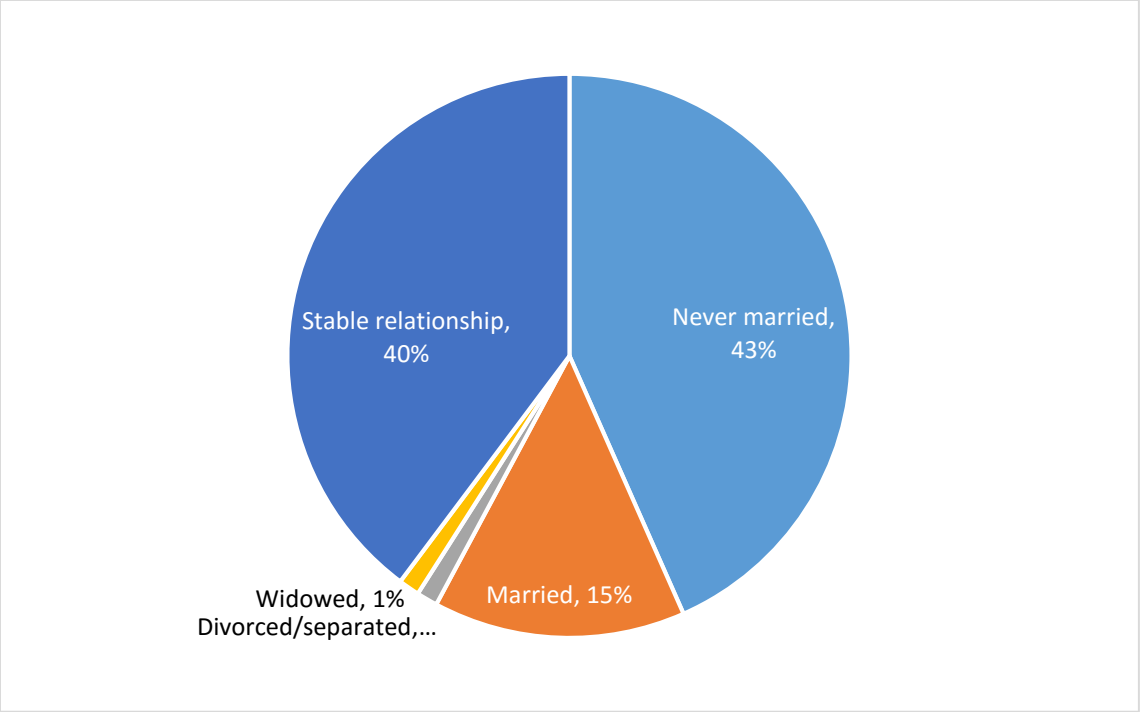


Figure 1.4: Relationship status

### 4.2.6 Reproductive choices and health status

*Table* 1.4 summarises the sample's responses on questions relating to sexual activity, health and reproduction choices.

#### *4.2.6.1 Sexual activeness*

As shown in *Table* 1.4, 76 (91.6%) of the respondents were sexually active while the remaining 7 (8.4%) were not.

Table 1.4: Health status and reproduction choices

| Question | Answer | n | % |
|---|---|---|---|
| Are you sexually active? | Yes | 76 | 91,6% |
| | No | 7 | 8,4% |
| Do you have any children? | Yes | 59 | 71,1% |
| | No | 24 | 28,9% |
| Have you thought about having (more) children since you found out that you were HIV-infected? | Yes | 65 | 78,3% |
| | No | 18 | 21,7% |
| | **Total** | **83** | **100,0%** |
| Do you think disclosing your HIV status to your partner could affect your choice of having or not having children? | Yes | 46 | 55,4% |
| | No | 37 | 44,6% |
| | **Total** | **83** | **100,0%** |
| Would you want to have (more) children at some point in the future? | Yes | 65 | 78,3% |
| | No | 18 | 21,7% |
| | **Total** | **83** | **100,0%** |
| Your general state of health (being sick or healthy) could affect your choice of contraceptive method or your desire to have children | Yes | 50 | 60,2% |
| | No | 33 | 39,8% |
| | **Total** | **83** | **100,0%** |
| Have you discussed having (more) children in the future with your partner? | Yes | 61 | 73,5% |
| | No | 14 | 16,9% |
| | N/A | 8 | 9,6% |
| | **Total** | **83** | **100,0%** |
| If yes, how would you describe your partners opinion on whether to have (more) children? | Negative | 14 | 16,9% |
| | Neutral | 17 | 20,5% |
| | Positive | 43 | 51,8% |
| | N/A | 9 | 10,8% |
| | **Total** | **83** | **100,0%** |

#### *4.2.6.2 Intentions to have more children*

In the sample, 59 (71.1%) of the respondents had children while 24 (28.9%) did not. The sample therefore consisted mostly of sexually active women who already had children.

Most of these women would prefer to have more children in the future despite their status. The majority, 65 (78.3%) responded "Yes" to the question *Have you thought about having (more) children since you found out that you were HIV-infected?* Also, 65 (78.3%) responded "Yes" to the statement, *would you want to have (more) children at some point in the future?* With a minority 18 (21.7%) responding "No."

#### *4.2.6.3 The effects of the partner in the decision to have more children*

*Figure* 1.5 shows the sample's response to the following questions:

- *Have you discussed having (more) children in the future with your partner?*
- *If yes, how would you describe your partner's opinion on whether to have (more) children?*

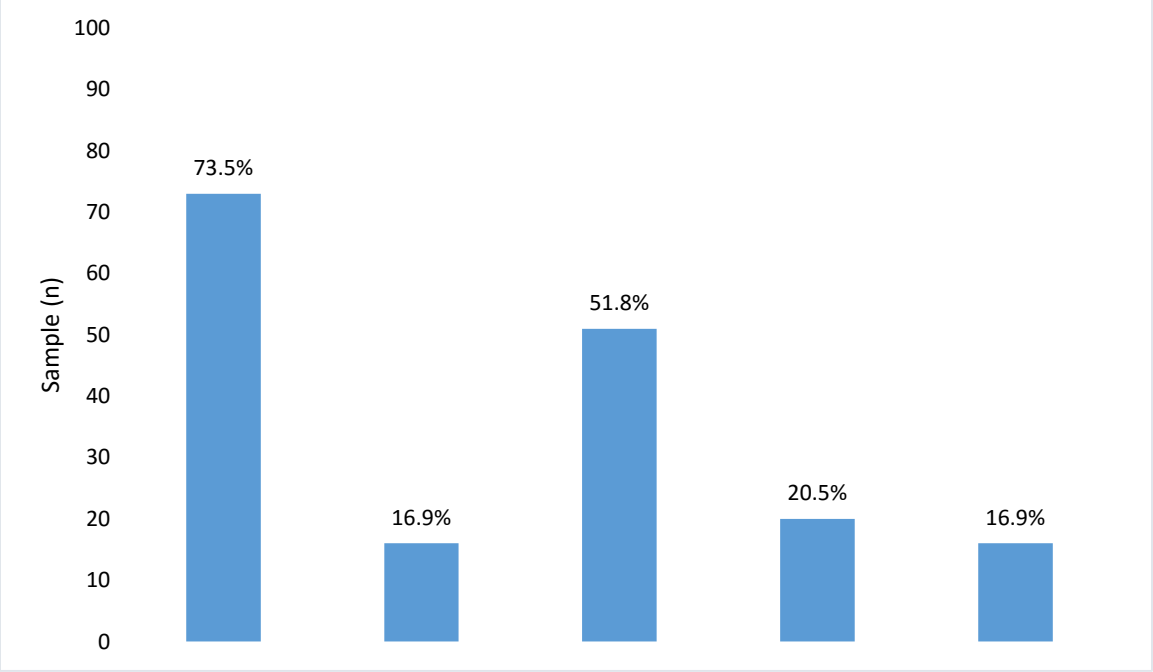


Figure 1.5: Partners' views on having more children in the future

As shown, 61 (73.5%) had discussed having more children with their partners and 14 (16.9%) had not. Of those who indicated having discussed the issue with their partners, 43 (51.8%) rates their partners' response as positive, 17 (20.5%) as neutral and 14 (16.9%) as negative.

#### *4.2.6.4 Partner disclosure*

*Figure* 1.6 shows the sample's response to the following questions:

- *Do you think disclosing your HIV status to your partner could affect your choice of having or not having children?*

On whether disclosing their HIV status to their partners can affect their choice of having or not having children, 46 (55.4%) said "Yes" and 37 (44.6%) said "No."

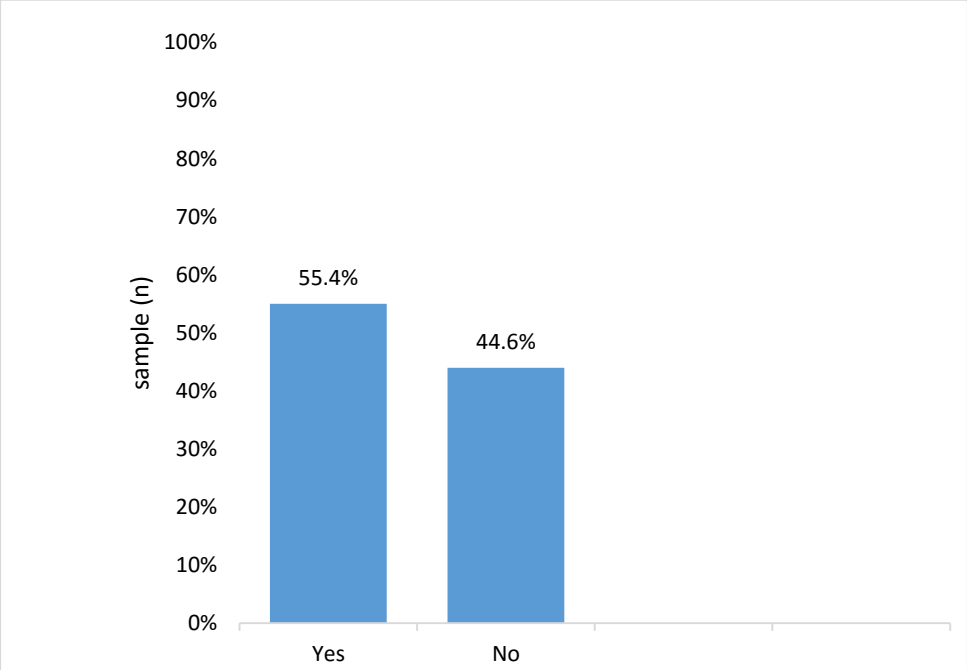


Figure 1.6: Partner disclosure

### *4.2.6.5 Choice of contraceptive*

*Figure*1.7 shows the sample's response to the statement, "Your general state of health (being sick or healthy) could affect your choice of contraceptive method or your desire to have children."

Out of 83 respondents, 50 (60.2%) agreed that their health status could affect their choice of contraceptive method or your desire to have children. The remaining 33 (39.8%) responded "No" to the same question.

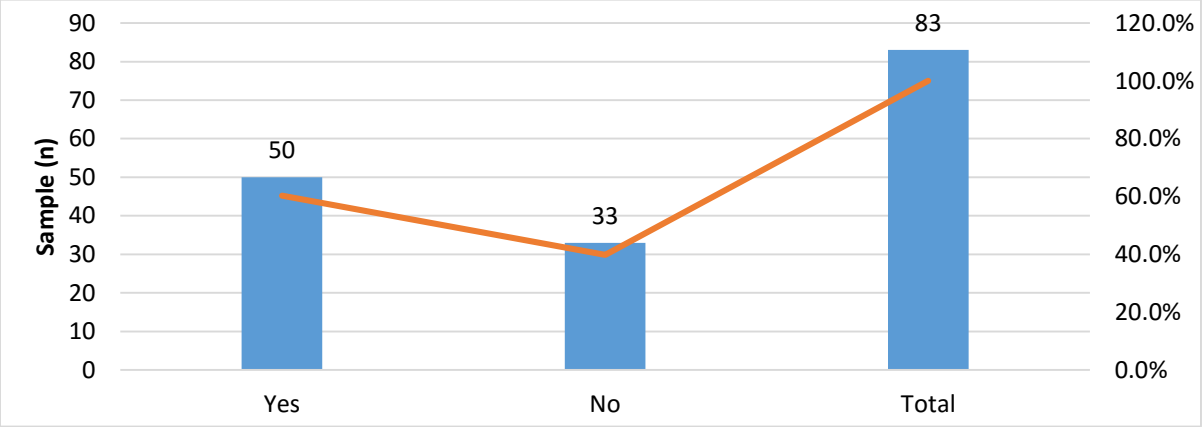


Figure 1.7: Your general state of health (being sick or healthy) could affect your choice of contraceptive method or your desire to have children

### *4.2.6.6 Social and partner pressures on decision to have children*

*Figure* 1.8 shows the sample's responses to questions relating to the influence that partners and society in general had in respondents' decisions to have more children.

In response to a question on the community's influence on their decision to have children, 36 (43.4%) said communities had very little influence on this decision; 29 (34.9%) said it had no influence and 18 (21.7%) said it had a very strong influence.

In response to partner's influence on the same decision related to having children, 35 (42.2%) said their partners had a very strong influence; 20 (24.1%) said the partners had no influence and 19 (22.9%) said partners had very little influence.

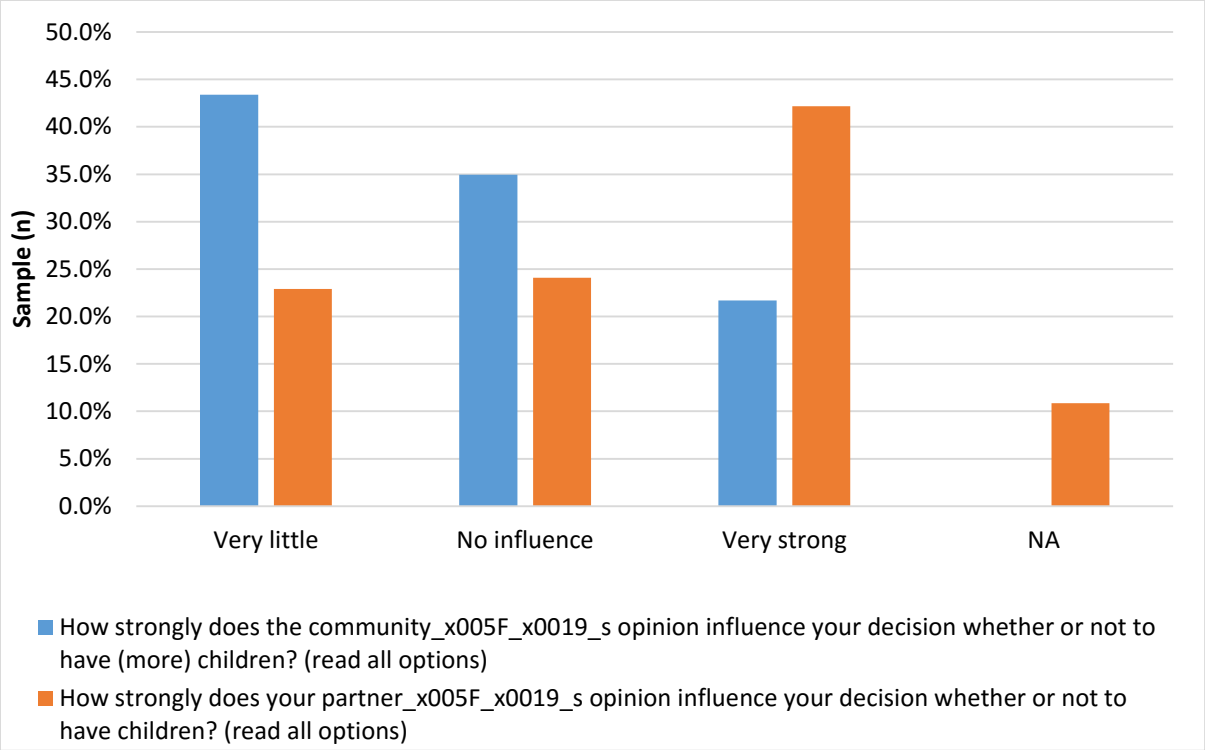


Figure 1.8: Effects of partner and community influences

### 4.2.7 Attitudes of healthcare professionals

Data was also collected on the sample's perceptions on the attitudes of healthcare workers towards HIV-infected reproductive women. Table 5 summarises this data.

Results showed that all the respondents had discussed having (more) children in the future with a health worker working at a hospital or clinic. Amongst the respondents, 57 (68.7%) had discussed the issue with a nurse, 21 (25.3%) with a counsellor and 6% with a doctor.

Table 1.5: Attitude of health care professionals

| Question | Answer | N | Percent |
|---|---|---|---|
| Since you became HIV-infected, have you discussed having (more) children in the future with a health worker working at a hospital or clinic? | Yes | 3 | 100,0% |
| | No | 0 | 0,0% |
| | **Total** | **83** | **100,0%** |
| If yes, what was the position of that health worker? | Nurse | 57 | 68,7% |
| | Doctor | 5 | 6,0% |
| | Counsellor | 21 | 25,3% |
| | **Total** | **83** | **100,0%** |
| Health workers counselling can influence your choice of having or not having children? | Yes | 47 | 56,6% |
| | No | 36 | 43,4% |
| | **Total** | **83** | **100,0%** |
| Health worker's attitudes and approach to family planning counselling can influence your choice of having or not having children. | Yes | 47 | 56,6% |
| | No | 36 | 43,4% |
| | **Total** | **83** | **100,0%** |
| How do you think that health worker felt about the possibility of you having (more) children? | Negative | 19 | 22,9% |
| | Neutral | 17 | 20,5% |
| | Positive | 47 | 56,6% |
| | **Total** | **83** | **100,0%** |
| How strongly has that health worker's opinion influenced your decision whether or not to have (more) children? | Very little | 23 | 27,7% |
| | No influence | 24 | 28,9% |
| | Very strong | 36 | 43,4% |
| | **Total** | **83** | **100,0%** |

Respondents were asked to respond to following statements:

> *Health workers counselling can influence your choice of having or not having children. Health worker's attitudes and approach to family planning counselling can influence your choice of having or not having children.*

Among the respondents, 47 (56.6%) were positive that healthcare workers counselling can influence their choice of having or not having children. Equally, 47 (56.6%) were also positive that health worker's attitudes and approach to family planning counselling can influence their choice of having or not having children.

To the question, *how strongly has health worker's opinion influenced your decision whether or not to have (more) children?* 36 (43.4%) believed that healthcare workers had a very strong influence. In contrast, 24 (28.9%) believed that they had no influence and the remaining 23 (27.7%) believed that they had very little influence.

### 4.2.8 Rated perceptions on having/not having children

In this section, results of respondents' perception on reproduction among HIV Positive women are presented on a Likert scale (Table 1.6). These were ranked from strongly disagree to strongly agree. The following scale by Becker (2017) was used to interpret the mean scores:

> 4.20 ≤ 5.00 (Very positive)
> 3.40 ≤ 4.20 (Positive)
> 2.60 ≤ 3.40 (Unsure / Neutral)
> 1.80 ≤ 2.60 (Negative), and
> 1.00 ≤ 1.80 (Very Negative)

Table 1.6: Mean rankings - Likert scale questions on perceptions on reproduction among HIV-infected women. Likert scale questions used were strongly disagree (SD), disagree (D), neutral (N), agree (A), strongly agree (SA).

| Question on perceptions | n | Mean | SD | Likert Scale % | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | SD | D | N | A | SA |
| My general state of health (being sick or healthy) could affect my choice of contraceptive method or my desire to have children. | 83 | 3,45 | 1,05 | 2.4 | 24.1 | 10.8 | 51.8 | 10.8 |
| The side effects of contraceptive methods could affect my choice of family planning methods. | 83 | 3,45 | 0,84 | 1,2 | 19,3 | 13,3 | 66,3 | |
| Family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children. | 83 | 3,40 | 1,09 | 3.6 | 27.7 | 2.4 | 57.8 | 8.4 |
| The fear of stigmatisation or discrimination by family or friends could affect my choice of having or not having children. | 83 | 3,35 | 1,02 | 2,4 | 25,3 | 14,5 | 50,6 | 7,2 |
| Pregnancy desires or intentions may influence my choice of contraceptive method. | 83 | 3,34 | 1,14 | 3,6 | 28,9 | 10,8 | 43,4 | 13,3 |
| Health workers' attitudes and approach to family planning counselling can influence my choice of having or not having children. | 83 | 3,28 | 1,15 | 3,6 | 33,7 | 4,8 | 47,0 | 10,8 |
| The type of contraceptive methods available at your nearest clinics or health centres affects my choice of having or not having children. | 83 | 3,24 | 1,02 | 2,4 | 30,1 | 13,3 | 49,4 | 4,8 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Health workers counselling can influence my choice of having or not having children. | 83 | 3,22 | 1,17 | 4,8 | 33,7 | 7,2 | 43,4 | 10,8 |
| My male partner may influence my choice of having or not having children. | 83 | 3,10 | 1,05 | 3,6 | 36,1 | 10,8 | 45,8 | 3,6 |
| The fear of being stigmatised by my partner may affect my demand for condom use. | 83 | 3,08 | 1,08 | 2,4 | 41,0 | 8,4 | 42,2 | 6,0 |
| HIV status of my partner (either positive or negative) will affect my choice of having or not having children. | 83 | 3,06 | 1,09 | 3,6 | 38,6 | 12,0 | 39,8 | 6,0 |
| Disclosing my HIV status to my partner could affect my choice of having or not having children. | 83 | 3,04 | 1,10 | 3,6 | 39,8 | 13,3 | 36,1 | 7,2 |
| Health workers attitude during counselling suggest that HIV positive women must not bear children. | 83 | 2,76 | 1,09 | 7,2 | 48,2 | 9,6 | 31,3 | 3,6 |

One-sample t-tests were further carried out to test the statistical significance of the means of the above factor rankings.

#### *4.2.8.1 One-sample t-tests*

The one-sample t-tests below firstly tested whether the differences in the means of the scores to the Likert scale questions that represented different factors was statistically significant i.e. whether the means differed because of differences in the importance or strength of a factor or if it differed by chance. A 95% degree of confidence or a 5% level of significance ($p<0.05$) was used in the test.

Secondly, one-sample t-tests were used to test if the mean of each question/statement below was statistically significant from the sample's neutral position (Mean of $2.60 \leq 3.40$) as shown in the scale above. An above neutral position would indicate a generally positivity towards the statement and a score below the neutral a more negative perception on the statement.

From *Table* 1.7, it can be noted that all the 13 statements and the factors they represented had statistically significant mean differences at $p<0.05$. This therefore leads to a conclusion that the above ranking of factors can show the factors that are important in the reproductive decisions of HIV-infected women.

Table 1.7: One-sample t-tests on reproduction perceptions among HIV-infected women

| | Mean ranking | Test value (T) | Degrees of freedom (df) | Sig. (2-tailed) | Mean Diff |
|---|---|---|---|---|---|
| My general state of health (being sick or healthy) could affect my choice of contraceptive method or my desire to have children. | 1 | 29.881 | 82 | .000 | 3.446 |
| The side effects of contraceptive methods could affect my choice of family planning methods. | 2 | 37.165 | 82 | .000 | 3.446 |
| Family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children. | 3 | 28.332 | 82 | .000 | 3.398 |
| The fear of stigmatisation or discrimination by family or friends could affect my choice of having or not having children. | 4 | 29.995 | 82 | .000 | 3.349 |
| Pregnancy desires or intentions may influence my choice of contraceptive method. | 5 | 26.672 | 82 | .000 | 3.337 |
| Health worker's attitudes and approach to family planning counselling can influence my choice of having or not having children. | 6 | 25.940 | 82 | .000 | 3.277 |
| The type of contraceptive methods available at your nearest clinics or health centres affects my choice of having or not having children. | 7 | 28.970 | 82 | .000 | 3.241 |
| Health workers counselling can influence my choice of having or not having children. | 8 | 25.066 | 82 | .000 | 3.217 |
| My male partner may influence my choice of having or not having children. | 9 | 26.745 | 82 | .000 | 3.096 |
| The fear of being stigmatised by my partner may affect my demand for condom use. | 10 | 25.915 | 82 | .000 | 3.084 |

| | | | | | |
|---|---|---|---|---|---|
| HIV status of my partner (either positive or negative) will affect my choice of having or not having children. | 11 | 25.674 | 82 | .000 | 3.060 |
| Disclosing my HIV status to my partner could affect my choice of having or not having children. | 12 | 25.188 | 82 | .000 | 3.036 |
| Health workers attitude during counselling suggest that HIV positive women must not bear children. | 13 | 23.089 | 82 | 000 | 2.759 |

#### *4.2.8.2 One-way ANOVA tests*

As discussed in the previous section, One-way ANOVA tests were done to test for statistically significant mean differences between candidate groups. The independent variables for the tests were:

- age
- level of education
- employment status
- average house-hold monthly income
- religion
- relationship type
- Sexual activeness
- Intention to have children

The dependent variables were the 13 questions on the Likert scale on the overall perceptions of the sample on reproduction. *Table* 1.8 summarises the results of these one-way ANOVA tests. The scores in *Table* 1.8 are discussed in the following sections.

Table 1.8: One-way ANOVA on reproduction perceptions among HIV-infected women

| Independent variable | Statistically significant dependent variable | Test statistic(F) | Sig. |
|---|---|---|---|
| Age | none | | p>0,05 |
| Level of education | none | | p>0,05 |
| Employment status | none | | p>0,05 |
| Average monthly household income | Health workers counselling can influence my choice of having or not having children. | 4,345 | 0,039 |
| | Health workers attitude during counselling suggest that HIV positive women must not bear children. | 6 | 0,018 |
| Religion | Family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children. | 4,558 | .049 |
| Area of residence | none | | p>0,05 |
| Relationship status | Disclosing my HIV status to my partner could affect my choice of having or not having children. | 13,03 | 0,025 |
| | HIV status of my partner (either positive or negative) will affect my choice of having or not having children. | 13,00 | 0,022 |
| | The fear of being stigmatised by my partner may affect my demand for condom use. | 11,86 | 0,035 |
| Do you have any children | HIV status of my partner (either positive or negative) will affect my choice of having or not having children. | 2,178 | 0,32 |

*4.2.8.2.1 Age*

There were no statistically significant differences in mean responses on the sample responses to the dependent variables by age (all p-values were above 5% ($p>0.05$). Differences in responses by age were therefore by chance.

*4.2.8.2.2 Level of education*

Like with age, there was no statistically significant mean differences on the sample responses to the dependent variables by level of education as all p-values were above 5% ($p>0.05$). Respondents of different educational levels were bound to hold perceptions that were more or less similar with differences being explained by chance.

*4.2.8.2.3 Employment status*

There were also no statistically significant mean differences on the sample's perceptions by respondents of different employment status, specifically the employed, unemployed and those classified as still schooling.

*4.2.8.2.4 Average house-hold monthly income*

There were statistically significant differences in mean scores on how candidates of different income levels responded to the following statements:

- Health workers counselling can influence my choice of having or not having children ($F=4.345$, $p<0.05$)
- The attitude of health workers during counselling suggest that HIV positive women must not bear children ($F=6.0$, $p<0.05$).

In the first statement, post hoc Scheffe Test showed that the difference lay between the over R2000 per month group that had a higher mean score (mean=1.248. sd=0.355) than the R501-R1500. This indicates that the above R2000 group was generally more agreeable to the view that health workers counselling could influence their choice of having or not having children compared to the latter group.

In the second statement, post hoc Scheffe tests showed that the differences again lie between the R501-R1500 and the over R2000 group. The former group held a stronger view on the statement judging by a higher mean than the latter (mean=1.437, sd=0.331).

*4.2.8.2.5 Religion*

The sample's response differed on the statement, family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children by religion ($F=4.558$, $p<0.05$). The differences were explained by a higher mean score on the non-Christian sample (mean=3.90, sd=.738) versus a lower mean score by Christian candidates (mean=3.33, sd=1.119). Respondents who classified themselves as non-Christian therefore agreed more with the statement than those who classified themselves as Christian. Using Becker (2017) scale, non-Christian were positive about the statement (mean= $3.40 \leq 4.20$) while Christian were more neutral to it (mean=$2.60 \leq 3.40$).

*4.2.8.2.6 Area of residence*

There were no statistically significant differences on the sample responses to the dependent variables by area of residence as all p-values were above 5% ($p>0.05$). The sample's responses therefore did not statistically significantly differ by whether one stayed in a village, town or suburb.

*4.2.8.2.7 Type of relationship*

There were statistically different mean responses to the following statements, by candidates of different relationship statuses:

- Disclosing my HIV status to my partner could affect my choice of having or not having children. ($F=13,03$, $p<0.05$)
- HIV status of my partner (either positive or negative) will affect my choice of having or not having children. ($F=13$, $p<0,05$)
- The fear of being stigmatised by my partner may affect my demand for condom use ($F=11, 86$, $p<0.05$)

Comparison of the means showed that the differences could be explained by higher mean scores (hence more agreeability to the statement) by widowed respondents (mean=4, sd=1) in the first statement. In the second statement, married respondents had the highest mean score (mean=3.75, sd=1.15) and in the last statement, respondents reported as being in stable relationships had the highest mean scores (mean=3.58, sd=0).

#### *4.2.8.2.8 Sexual activeness*

There were also no statistically significant differences on the sample's perceptions by respondents regardless of whether they were sexually active or not. Differences between the two groups were therefore due to chance factors.

#### *4.2.8.2.9 Do you have children*

Respondents who had children and those who did not differed in the way they responded to the following statement: HIV status of my partner will affect my choice of having or not having children ($F=2,178$, $p<0.05$). This difference could be explained by a higher mean score (mean=3.46, sd=1.103) by the respondents who had no children compared to a mean of 2.90 (sd=1.045) by those who had children. This indicates that respondents with children agreed less with the statement while those with no children were more positive with it. Using Becker (2017) scale, those with no children were positive about the statement (mean= $3.40 \leq 4.20$) while those with no children were more neutral to it (mean=$2.60 \leq 3.40$).

## 4.3 CONCLUSION

This chapter presented the research results. The discussion of research findings would be done in the next chapter.

# CHAPTER 5: DISCUSSION OF RESULTS

## 5.1 INTRODUCTION

The discussion of research results and summary of research results were presented in this chapter.

## 5.2 PURPOSE OF THE STUDY

The purpose of this study was to determine the factors influencing reproductive health choices of HIV positive women attending primary health care services at Greater Tzaneen Sub District.

## 5.3 DISCUSSIONS OF RESEARCH RESULTS

### 5.3.1 Sample distribution by age

The modal age group was 36 to 40 year olds. This age group was lower as compared to similar study conducted in Nigeria where the highest number is 40- 49 years (Shehu, Istifanus & Zuwaira 2016:90). Another study conducted in Sub-Saharan Africa by Darteh et al. (2019:7), shows that older women were more likely to make decision on their reproductive health choices than younger women.

### 5.3.2 Level of education

The sample was dominated by 16.9% respondents who had reached tertiary level which is lower as compared to the study conducted in Nigeria where 25.4% reached tertiary education (Shehu et al. 2016:90). This finding relates to the study conducted in Sub-Saharan Africa that revealed that women who were less educated or have reached secondary education were less likely to make reproductive health decision (Darteh et al. 2019:7).

### 5.3.3 Employment status

The sample had a comparatively large number of women who were classified as unemployed making close to two thirds of the same sample. This relates to another study

Sub-Saharan Africa that revealed that women who were not working were less likely to make decision on their reproductive health choices (Darteh et al. 2019:7).

### 5.3.4 Income

The majority of the sample had an average monthly income between 1001 and 1500.This result is similar to the findings by Darteh et al. (2019:7) where women from poor background and richer background were less likely to make decision on reproductive health choice.

### 5.3.5 Residence

The majority of the sample lived in a village set-up. Earlier studies from Sub-Saharan Africa confirmed that Women from rural areas were less likely to make decisions on reproductive health as compared to those from urban areas (Darteh et al. 2019:7).

### 5.3.6 Religion and reproduction

For the majority of the sample, religion did not influence the choice to reproduce or not. In a study conducted in Zimbabwe by Hallfors, Iritani, Zhang, Hartman, Luseno, Mpofu and Rasakaniko (2016:184), participants said that their churches encouraged them to attend health care services to seek family planning and HIV testing services. All participants felt that it is important for people to test for HIV.

### 5.3.7 Relationship status

Most females in the sample were never married and they felt that their relationship status would not affect their desire to reproduce or not. In another study conducted in Ghana on covert contraceptive use prevalence, results show that single women were more likely to use covert contraceptive than married women (Baiden, Mensah, Akoto, Delvaux & Appiah 2016:3).

### 5.3.8 Sexual activeness

The study results showed that the sample was highly sexually active. This is consistent with a previous study by Hamzah and Hamlyn (2018:235), which found that young women

living with HIV engage in sexual activity without using protection because they fear to disclose to their partners. These pose a high risk of HIV transmission due to lack of knowledge.

### 5.3.9 Intentions to have more children

The respondents therefore had positive views on having more children in the future despite their HIV status. The study by Agbo et al. (2017:80) found that there is expressed desire to have children among people living with HIV (PLHIV). A study conducted in Uganda produced a lower figure of 30.9% respondents who expressed the desire for children (Wagner & Wanyenze 2012:3).

### 5.3.10 Partners' views on having more children in the future

Partners mostly held positive opinions on the matter of having more kids in the future. A study conducted in Nkangala District, Mpumalanga on factors associated with male partner involvement in prevention of mother to child (PMTCT) programs shows a higher score of 84% which indicates higher levels of male partner involvement (Matseke, Boukes & Nolte 2017:12).

### 5.3.11 Partner disclosure

Over half of the respondents believed that disclosing their HIV status to their partner would affect their choice to have more children. In a study conducted in Canada by Duff, Chamboko and Kestler (2018:1), it was found that HIV disclosure was positively associated with feelings of discouragement from wanting to become pregnant. In another study conducted in Kenya, out of 30 women who participated in the study, one third of the women reported experiencing partner violence post HIV sero-disclosure (Colombini, James, Ndwiga, & Mayhew 2016:2). These proves that respondents who are diagnosed HIV positive without their partners are faced with dilemma.

### 5.3.12 Choice of contraceptive

The majority of respondents said that their health status could affect their choice of contraceptive method or desire to have children. A study conducted in Cameroon shows

that many women refused the use of contraceptives while others showed interest but they were denied access due to unavailable contraceptives in HIV clinics (Kuete, Ngueye, Wang, Yuan, Ma, Mandengue Ndaya, Nyangomo, Zangue, Xiong & Zhang 2013:14).

### 5.3.13 Social and partner pressures on decision to have children

The majority of respondents said communities had little influence on their decision to have children. The respondents were strongly influenced by their partners on the decision related to having children. Comparatively, partners had a stronger influence on the decision than communities did. In a study conducted in Uganda, out of 54 individuals, 21 reported pressure to have children from their partners and 14 reported that their families pressured them to have male children to ensure an heir (Mindry, Wanyenze, Woldetsadik, Finocchario- Kessler Goggin, Wagner & Beyeza- Kashesya 2017:2490).

### 5.3.14 Attitudes of healthcare professionals

The respondents were also positive that health worker's attitudes and approach to family planning counselling can influence their choice of having or not having children. In a study conducted in United States, 57% of the respondents indicated that they usually discuss contraception or fertility intentions with their HIV positive female patients of the same reproductive age (Rahangdale, Richardson, Carda-Auten Adams & Grodensky 2014:1).

### 5.3.15 Rated perceptions on having/not having children

It can therefore be concluded that the questions/statements below represent the most important perceptions on reproductive decisions among HIV-infected women.

- My general state of health (being sick or healthy) could affect my choice of contraceptive method or my desire to have children.
- The side effects of contraceptive methods could affect my choice of family planning methods.
- Family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children.

It can be noted that the strongest perceptions, hence factors, on reproducing or not were related to the statements:

- *My general state of health could affect my choice of contraceptive method or my desire to have children.* This relates to the findings by Shehu et al. (2016:90), where older women opted to use permanent family planning method such as sterilization because they fear that they might become sicker.
- *The side effects of contraceptive methods could affect my choice of family planning methods.* Some women did not use contraceptives because they are afraid of side effects and they desire to reproduce (Shehu et al. 2016:90).
- *Family, social or cultural pressure that a woman must bear children would affect my reproductive health choice*. Another study found that women are expected to have children in order to be accepted but they are being considered irresponsible for becoming pregnant while HIV positive. These cause a dilemma for HIV positive women (Van Zyl et al. 2015:438).

The above factors were recorded as being positive judging by the results from the interpretation of the items used on the Likert scale. The sample was generally more neutral on the other factors presented as overall perceptions on reproductive health decisions.

The sample was least positive on the following factors

- My partners' HIV status will affect my reproductive health choice.
- Disclosing my HIV status to my partner could affect my choice of having or not having children.
- The attitude of health care professionals during counselling suggest that women living with HIV must not bear children.

A study that was conducted at Maputo indicated that women perceived pregnancy as way to confirm identity and to prove that an individual is able to bear their own children. The factors that are most crucial are stigmatization, lack of knowledge about reproductive health services available (Cuinhane, Roelens, Vanroelen, Quive & Coene 2018:1).

## 5.4 SUMMARY OF RESEARCH RESULTS

From this research study, there was no statistically significant mean differences on sample responses when age, level of education, employment status, area of residence and sexual activeness were used as independent variables. There were however statistically significant mean differences when average monthly household income, relationship status, the decision whether one wants to have children or not and religion were used as independent variables.

## 5.5 CONCLUSION

In conclusion, the factors such as age, marital status, level of education, employment status, income, religion, sexual activeness, partner disclosure, social pressure and health care professionals have either negative or positive influence on the reproductive health choices of women living with HIV. These factors were also found to influence one's perceptions on reproductive health decisions among HIV-infected women.

# CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

## 6.1 INTRODUCTION

This study concludes the research study related to recommendations, contributions of the study and limitations.

## 6.2 CONCLUSION

In conclusion, the Health care workers who provide reproductive health care services to people living with HIV in ART clinics need to acknowledge the above factors that influence the reproductive health choices of women living with HIV in order to offer appropriate services. The attitude of health care workers on the approach to family planning counselling was still acceptable but needs to be improved. Moreover, the identified factors therefore influenced one's perceptions on reproductive health decisions among HIV-infected women.

## 6.3 RECOMMENDATIONS

The study findings show that respondent were sexually active, some were not using condoms. In their responses, some did not disclose their status to their partners because they fear that their reproductive health decision will be affected. The following recommendations are premised on nursing in relation to the study findings.

### 6.3.1 Future Research

Recommendations to nursing research refer to:

- Further research to help find reasons why partners refuse condom use.
- A research to help identify the best contraceptive method without side effects for HIV positive women.
- A qualitative study looking at effective ways of encouraging male participation in reproductive health issues in the socio-cultural context of South Africa.
- A research on the effects of non-disclosure of HIV positive status to partner and relatives on the choice of reproductive health services.

### 6.3.2 Policy Change

Recommendations relating to policy change refers to the changes made by the government that will help to develop health care systems related to reproductive health knowledge, attitudes and practices of HIV positive women.

- Making policies that details the importance of partner involvement on issues of reproductive health choices.
- To successfully fight against stigma and discrimination and to encourage HIV status disclosure, awareness campaigns and community mobilisation by government structures should be stressed.

### 6.3.3 Clinic Managers

- Provide comprehensive guidelines on the content of the health education to be given to the women living with HIV on reproductive health choices.
- Open discussion amongst staff members about reproductive health issues need to be encouraged.
- Staff training and awareness campaigns should be maintained for reproductive health programs to be successful and the fight against stigma and discrimination.

### 6.3.4 Health Care Professionals

- Health Care Workers need to be trained on reproductive health so that they can be able to render proper counselling of reproductive and treatment to people living with HIV.
- Health care providers need to support couples to identify their reproductive health needs and to make them make informed decision without judging them.

## 6.4 CONTRIBUTIONS OF THE STUDY

The study will add value to the service delivery and control of HIV and AIDS, because it will help to encourage improvement in the attitudes and knowledge of health care professionals and communities, towards women living with HIV on ART with regard to

their reproductive choices. It will also enable HIV positive people to be free to consults for advices regarding their reproductive needs and choices without fear of reprisal.

The study also makes a way for other similar studies to the analysis of the details on factors influencing reproductive health choices. If this study is complimented by other studies, it can be used in the national policy for its strategy.

## 6.5 LIMITATIONS OF THE STUDY

The following limitations were identified during the course of the study:

- The number of respondents targeted was not reached because some of the clients did not want to participate. However, the sample size of 83 respondents validated the data.
- Some respondents agreed to participate but provided that the researcher also help to issue their medication because they don't want to stay in the clinic for a long time which was so difficult for the researcher to collect data from many respondents.
- Some respondents declined consent due to fatigue.
- Structured questionnaires were used to limit the respondents who wished to elaborate more on certain items.
- The respondents were collecting ART on the site that was used for data collection. The respondents' response on attitude questions might not be reliable with a fear that the information can be used against them when they come for ART collection.

## 6.6 RESEARCH QUESTION AND HOW IT WAS ADDRESSED

The goal of the analysis was to answer the research question that reads as follows:

- What are the factors influencing reproductive health choices of women living with HIV attending primary health care Services at Greater Tzaneen Sub District?

This research study highlights the factors influencing reproductive health choices of women living with HIV. Some factors in the study are similar while others are unique to specific reproductive health issues among women living with HIV. However, the relationship between the factors together with the needs of women living with HIV suggests the need for strategies or development of programs or policies to meet those needs

Another goal of the analysis was to meet the objective that read as follows:

- To make recommendations that could empower women to make informed decisions regarding their reproductive health issues.

Findings emerged from this research study, such as partner disclosure that could affect their choice, their health status affects the choice of contraceptive methods and partner pressure meet the research objective. These findings suggest the need to for health care providers to give a comprehensive information that could empower women living with HIV to make informed decisions regarding their reproduction and partner involvement during counselling to ease the stigma and abuse from their partners.

In summary, the study findings are contextualised in respect to the research question and research objectives.

## 6.7 CONCLUDING REMARKS

The findings of the research study provided the researcher with enough evidence to determine the factors influencing reproductive health choices of women living with HIV attending primary health care services at Greater Tzaneen Sub District.

LIST OF REFERENCES

Agbo, S & Rispel, C. 2017. *Reproductive choices of HIV positive individuals attending Primary health care facilities in a South African District.* Biomed Central Public Health. Volume 17 (1): 540. DOI10.1186/s12889-017-4432-3. Accessed on 07 July 2017 at https:bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4432-3.

Amin, A. 2015. *Addressing gender inequalities to improve the sexual and reproductive health and wellbeing of women living with HIV: Journal of the international AIDS society*. Volume18 (suppl 5): 20302. Accessed on 19 March 2021 at https://dx.doi.org/10.7448/IAS.18.6.20302.

Baiden, F, Mensah, GP, Akoto, NO, Delvaux, T & Appiah, PC. 2016. *Covert contraceptive use among women attending a reproductive health clinic in a municipality in Ghana*. BMC Women's Health. Volume 16:31. Accessed on 11 November 2020 at https://doi.org/10.1186/s12905-016-0310-x.

Beksinska, ME, Pillay, L, Milford, C & Smit, JA. 2014. *The sexual and reproductive health needs of youth in South Africa- history in context*. South African Medical Journal. Volume 104(10): 676. Accessed on 07 April 2018 at http://www.samj.org.za/index.php/samj/article/view/8809.

Bharat, S & Mahendra, VS. 2007. Reproductive Health Matters. *Meeting the sexual and reproductive health needs of people living with HIV: Challenges for health care providers.* Volume 15(29):93-112. Accessed on 16 November 2018 at http://www.who.int/reproductivehealth/publications/rtis/providers.

Brink, H, Van der Walt, C & Van Rensburg, G. 2014. *Fundamentals of research Methodology for healthcare Professionals*.3rd Edition. Cape Town. Juta and Company.

Brink, H, Van der Walt, C & Van Rensburg, G. 2018. *Fundamentals of research Methodology for healthcare Professionals*.3rd Edition. Cape Town. Juta and Company.

Carlson- Lalloo, E, Rusner, M, Mellgren, A & Berg, M. 2016. *Sexually and reproduction of HIV- positive women: A meta- synthesis*. *AIDS patient care and STDs*. Volume 30(2): 56-69. Accessed 07 July 2017 at http://online.liebertpub.com/doi/abs/10.1089/apc.2015.0260.

Chakare, T. 2013. *Factors associated with fertility desires and intentions among HIV positive women enrolled at a HIV treatment clinic in Windhoek Namibia*. University of Stellenbosch. Cape Town. Accessed 23 March 2021 at http://scholar.sun.ac.za.

Colombini, M, Mutemwa, R, Kivunaga, J, Moore, LS & Mayhew, SH. 2014. *Experiences of stigma among women living with HIV attending sexual and reproductive health services in Kenya: a qualitative stud*y. *Biomed Central Health Services Research*. Volume 14(1):8. Accessed 07 July 2017 at http://www.biomedcentral.com/1472-6963/141/412.

Colombini, M, James, C, Ndwiga, C & Mayhew, SH. 2016. *The risks of partner violence following HIV status disclosure, and health service responses: Narratives of women attending reproductive health services in Kenya*. Volume 19:20766. Accessed 25 August 2020 at http://dx.doi.org/10.7448/AIS.19.1.20766.

Cuinhane, CE, Roelens, K, Vanroelen, C, Quive, S & Coene, G.2018. *Perceptions and decision making with regard to pregnancy among HIV positive women in rural Maputo Province, Mozambique- a qualitative study*. Volume 18:166. Accessed on 30 August 2020 at https://doi.org/10.1186/s12905-018-0644-7.

Damian, JD, Johnston, MG, Erick, M, Beatrice, T & Sia, EM. 2018. *Contraception and Reproductive Medicine: Prevalence and factors influencing modern contraceptive use among HIV positive women in Kilimanjaro region, northern Tanzania*. Volume 3:7. Accessed on 17/03/2021 at https://doi.org/10.1186/s40834-018-0060-2.

Darten, EKM, Dickson, KS & Doku, DT. 2019. *Women's reproductive health decision-making*: *A multi-country analysis of demographic and health surveys in Sub-Saharan Africa*. Volume 14 (1). Accessed on the 11 November 2020 at https://doi.org/10.1371/journal.pone.0209985.

Department of Health. South Africa (Republic). 2012. *National contraception clinical guidelines. A companion to the National contraception and fertility planning policy and service delivery guidelines*. Pretoria: Government Printer. Accessed on the 23 March 2021 at http://www.gov.za/sites/default/files/gcis_document/201409/contraceptionclinicalguidelines28jan2013-2.

Department of Health. South Africa (Republic). 2013. *National antenatal Sentinel HIV and Syphilis prevalence survey in South Africa*. Pretoria: Government Printer. Accessed on 07 March 2018 at http://www.health-e.org.za.

Department of Health. South Africa (Republic). 2014. *District Health Information System.* Pretoria: Government Printer.

Department of Health. 2015. South Africa (Republic). *Sexually Transmitted Infections*. Management Guidelines. Adapted from: *Standard Treatment Guidelines and Essential Drugs List PHC*: 4-5. Pretoria: Government Printer.

Department of Health. South Africa (Republic. 2016. *National Contraception Policy Guidelines Within a reproductive health framework*. Pretoria: Government Printer.

Department of Health. South Africa (Republic). 2017. The 2015 *National antenatal Sentinel HIV and Syphilis survey, South Africa*. Pretoria: Government Printer. Accessed on 09 JULY 2019 at http://www.health.gov.za/index.php/schortcodes/2015-03-29.

Department of Health. South Africa (Republic). 2018. *District health Plan.* Mopani District: Government Printer.

Duff, P, Chamboko, P & Kestler, M. 2018. *Realising women living with HIV's reproductive rights in the era of ART: The negative impact of Non-consensual HIV disclosure on pregnancy decisions amongst women living with HIV in a Canadian setting*. Accessed on 26 August 2020 at https://doi.org/10.1007/s10461-018-2111-8.

Dyah, J. 2020. *The Sexual and Reproductive Health of Women Living with HIV in Banten Province Indonesia: Integrating Qualitative and Quantitative Methods*. The University of Queensland. Australia. Accessed on 17 March 2021 at https://orcid.org/0000-0002-4159-9166.

Fatti, G, Shaik, N, Eley, B, Jacson, D & Grimwood, A. 2014. *Adolescent and young pregnant women at increased risk of mother-to-child transmission of HIV and poorer maternal and infant health outcomes. A cohort study at public facilities in the Nelson Mandela Bay Metropolitan district, Eastern Cape, South Africa*. Pub med. 104(12):874-880 assessed on 07 April 2018 at https://www.ncbi.nlm.nih.gov/m/pubmed/26042271.

Gray, JR, Grove, SK & Sutherland, S, (2016), Burns and Grove's *The practice of nursing research: Appraisal, Synthesis, and Generation of evidence*. 8th edition. St Louis, Missouri. Elsevier Health Sciences: 249-290.

Hallfors, DD, Iritani, BJ, Zhang, L, Hartman, S, Luseno, WK, Mpofu, E & Rusakaniko, S. 2016: *'i thought if I marry the prophet I would not die'*: *The significance of religious affiliation on marriage, HIV testing, and reproductive health practices among young married women in Zimbabwe*. Volume 13:1,178-187. Assessed on the 09 November 2020. DOI: https://doi.org/10.1080/17290376.2016.1245627.

Hamzah, E & Hamlyn, E. 2018: *Current opinion in HIV and AIDS: Sexual and reproductive health in HIV positive adolescents*. Volume 13:230-235(3). DOI: https://doi.org/10.1097/COH.0000000000000456.

Health Systems Development Unit. 2010. *Primary Clinical Care.* Volume 3. Maitland, Cape Town. South Africa. Heinemann Publishers: 47- 347.

Juliastuti, D, Dean, J & Fitzgerald, L. 2020. *Sexual and reproductive health of women living with HIV in Muslim- majority countries: a systematic mixed studies review.* Volume 20:5. Accessed on the 19 March 2021 at https://doi.org/10.1186/s/2914-020-00225-2.

Kuete, M, Ngueye, HCS, Wang, SZ, Yuan, H, Ma, X, Mandengue, C, Ndaya, BMM, Nyangomo, YZ, Zangue, CRF, Xiong, C & Zhang, H, 2013. *Contraceptive use and preference of HIV infected pregnant women living with HIV- negative partners in the central region of Cameroon: Across sectional survey*. Volume 1:14. Accessed 09 November 2020. DOI:10.21203/rs.2.13501/v1.

Limpopo Provincial AIDS Council.2017. *Annual progress report 2015/2016*.Accessed 2018 March 26 on http://sanac.org.za

MacCarthy, S, Rasanathan, JK, Ferguson, L & Gruskin, S. 2012. *The pregnancy decisions of HIV –positive women: the state of knowledge and way forward*. *An International Journal on Sexual and Reproductive Health Rights.* Volume 20:119-140 accessed on 27 March 2018 at https://www.sciencedirect.com/science/article/pii/S0968808012396419.

Matseke, MG, Ruiter, RAC, Rodriguez, VJ, Peltzer, K, Setswe, G & Sifunda, S. 2017. *Factors associated with male partner involvement in programs for the prevention of mother to child transmission of HIV in rural South Africa*. Volume 14:11 Accessed on 25 August 2020 at https://doi.0rg/10.3390/ijerph14111333.

Mataboge, MLS, Boukes, S & Nolte, AGW. 2016. *The experiences of clients and health care providers regarding the provision of reproductive health services including the prevention of HIV and AIDS in an informal settlement in Tshwane. Health SA Gesondheid.* Volume 21: 326. Accessed 06 July 2017 at http://www.sciencedirect.com/science/article/pii/S1025984815000150.

Mcintosh-Scott, A, Mason, T, Mason-Whitehead, E & Coyle, D. 2014. *Key Concept in Nursing and Healthcare Research.* Britain; SAGE: 144.

Masetha, N. 2016. *Limpopo Mirror*. Accessed 05 November 2018 at https://limpopomirror.co.za/articles/news/40393/2016-12-10.

Mopani District Municipality. 2016. *Reviewed Integrated Development Plan.2016/2017 Version* 1. Accessed on 09 July 2019 at https://www.mopani.gov.za/docs/idp/Approved%2520MDM%250IDP%25202016-2017.pdf.

Mindry, D, Wanyenze, RK, Woldetsadik, MA, Finocchario-Kessler, S, Goggin, K, Wagner, G & Beyeza-Kashesya, J. 2017. *Safer contraception for couples affected by HIV: Structural and cultural considerations in the delivery of safer conception care in Uganda*. Volume 21: 2488-2496. Accessed on 25 August 2020 at https://doi.org/10.1007/s10461-017-1816-4.

Mopani District Health Plan. 2018-2021. Department of Health. Accessed on 09 July 2019 at http://www.health.gov.za/DHP/docs/DHP 2018-21/Limpopo/Mopani

Murinda, L. 2014. *Examining sexual and reproductive health needs of adolescents infected with HIV at Chieza Child Care Centre, Harare, Zimbabwe*. University of South Africa. Pretoria. Accessed 23 March 2021 at http://hdi.handle.net/10500/18704.

National Department of Health. 2018. *Standard Treatment Guidelines and Essential Medicines List. Primary Health Care*. 6th edition. Pretoria. Republic of South Africa

Njuguna, E, Llovi, S, Muiruri, P, Mutai, k, Kinuthia, J & Njoroge, P. 2017. *Factors influencing the utilization of family planning services among HIV infected woman in a Kenyan health facility. International Journal of Reproduction, Contraception, Obstetrics and Gynaecology*. Volume 06(5):1746-1752. Accessed 10 April 2018 at http://www.ijrcog.org/index.php/ijrcog/article/view/2558.

Polit, DF & Beck, CT. 2014. *Nursing research: Generating and assessing evidence for nursing practice*. Lippincott: Williams and Wilkins.

Rahangdale, S, Richardson, A, Carda-Auten, J, Adams, R & Grodensky, C. 2014. *Provider attitudes toward discussing fertility intensions with HIV- infected women and serodiscordant couples in the USA*. Assessed on 30 August 2020 at https/;//www.ncbi.nlm.nih.gov/pmc/artic12les/P[MV4160891/#!po=0.925926. doi:10.4172/2155-6113.1000307

Ramkissoon, A, Searle, C, Burns, C & Beksinska, M. 2018. *Sexual and Reproductive health rights. Maternal, Adolescent and Child Health.* Department of Obstetrics and Gynaecology. University of Witwatersrand. Johannesburg. Accessed on 03 April 2018 at https//journals.co.za/content/health/2010/1/EJC35537.

Raday, F, Facio, A, Zeliska, E, Chandrakirana, K & Aouij, E. 2017. *Women's autonomy, equality and reproductive health in International Human rights: Between recognition, backlash and regressive trends. United Nations Human Rights special procedures. Special rapporteurs, independent experts and working groups.* Accessed 28 march 2021 at https://www.ohchr.org.

Ramathuba, DU, Khoza, LB & Netshikweta, ML. 2013. *Knowledge, Attitudes and practice of secondary school girls towards contraception in Limpopo Province*. Accessed 05.11.2019 at http://dx.doi.org/10.4102/curationis.v35i1.45.

Rogers, C, Sapkota, S, Paudel, R & Dantas, JAR. 2019. *Medical abortion in Nepal: a qualitative study on women's experiences at safe abortion services and pharmacies.* Curtin University. Western Australia. Accessed on 19 0ctober 2019 at https://reproductive-health-journal.biomedcentral.com/.

Salkind, NJ. 2012. *Exploring research.* 8th edition. New York. Pearson. DOI:10.111/j.1470-6431.2011.01075-2x.

Shehu, AU, Istifanus, AJ & Zuwaira, U. 2016. *Knowledge of contraception and contraceptive choices among human immunodeficiency virus-positive women attending antiretroviral clinics in Zaria,* Nigeria. Volume 3:84-90. Accessed on the 11 November 2020 at https://doi.org/10.4103/2384-5147.184355.

Sougou, NM, Bassoum, O & Faye, A. 2020. *Women's autonomy in health decision making and its effect on access to family planning services in Senegal in 2017: a propensity score analysis. BMC Public Health*. Volume 20: 872. Accessed 28 March 2021 at https://doi.org/10.1186/s12889-020-09003-x.

UNAIDS, 2012. *AIDS epidemic Update*. Accessed 24 April 2018 at http://www.unaids.org/publications/index.html.

UNAIDS. 2011. World AIDS day report. Accessed on 23 March 2021 at

http://www.unaids.org/publications/index.html.

UNAIDS. 2015. *UNAIDS Terminology Guidelines*. Accessed on 28 March 2021 at

https:www.unaids.org/publications/index.html.

UNICEF. 2012. *Preventing mother-to-child transmission (PMTCT) of HIV.* Accessed on 23 March 2021 at http://www.unicef.org/aids/index_preventionyoung.html .

Van Zyl, C & Visser, MJ. 2015. *Reproductive desires of men and women living with HIV: implications of family planning counselling*. *Reproductive Biomedicine Online* Volume 31: 338. Accessed 07 July 2017 at http://www.sciencedirect.com/science/article/pii/S1472648315002631.

Wagner, J & Wanyenze, R. 2012. *Fertility desires and intensions and the relationship to consistent condom use and provider communication regarding childbearing among HIV clients in Uganda*. Accessed on the 30 August 2020 at https://doi.org/10.5402/2013/478192.

Wiid, J & Diggines, CN. 2013. *Marketing research: an integrated approach*. 3rd edition. London. Juda.

Wilcher, R & Cates, WC. 2016. *Reproductive choices for women with HIV*. Accessed 05/11/2019 at https://www.scielosp.org.php?pid=S00042-96862009001100011andscript=sci_arttextandtlng=es.

WHO. 2014. *Reproductive choices for women with HIV. Bulletin of the World Health Organization*.87:833-839. Accessed 11 November 2018 at www.who.int.bulletin/volumes/87/11/08-059360.

WHO.2016. *Antenatal care. Only half of women worldwide receive the recommended amount of care during pregnancy*. Midwifery. Accessed 06/11/2018 at http://www.data.unicef.org.

World Health Organisation. 2017. *Consolidated guideline on Sexual and reproductive health and rights of women living with HIV.* World Health Organisation. Accessed on 11 March 2018 at http://www.who.int/iris/handle/10665/254885.

Woldesenbet, SA, Kufa, T, Lombard, C, Manda, S, Ayalew, K, Cheyip, M & Puren, A. 2019. *The 2017 National Antenatal Sentinel HIV Survey*. South Africa. National department of Health. Accessed on 16/03/2021 at https://www.nicd.ac.za/wp-content/uploads/2019/07/Antenatal_survey-report.

World Health Organisation 2017. *Human Reproductive (HRP) Annual report.* Department of Reproductive Health and Research including the UNDP-UNFPA-UNICEF-WHO-WORLD Bank Special Programme of Research, Development and Research Training in Human Reproduction. Accessed on 07 April 2018 at http://www.who.int/reproductivehealth/publications/reports/hrp-annual-report-2017/en/.

WHO. 2012. *Reproductive choices and family planning for people living with HIV. Geneva.* World Health Organization. Department of Reproductive Health and Research. Accessed 25 March 2021 at https://www.who.int/reproductivehealth/publications/familyplanning/9241595132/en/.

Zahan, N. 2014. *Factors Influencing Women's Reproductive Health. ABC Journal of Advanced Research*. Volume 3(38-46). Accessed on the 23 March 2021 at

http://oaji.net/articles/2015/814-1431431948.

ANNEXURE A: QUESTIONNAIRE IN ENGLISH

**RESEARCH TOPIC**: **FACTORS INFLUENCING REPRODUCTIVE HEALTH CHOICES OF WOMEN LIVING WITH HIV ATTENDING PRIMARY HEALTH CARE SERVICES AT MOPANI DISTRICT, LIMPOPO PROVINCE.**

**THIS QUESTIONNAIRE CONSIST OF THREE (3) SECTIONS. ANSWER ALL SECTIONS. MARK THE APPROPRIATE BOX WITH AN [X]**

**E.G. GENDER**

| | |
|---|---|
| **Female** | **X** |
| **Male** | |

**ABREVIATIONS**

**NA: NOT APPLICABLE**

**SECTION A:**

**Factors influencing reproductive health choices**

1.Age

| | |
|---|---|
| 18-20 years | |
| 20-35 years | |
| 35-40 years | |

2. Level of Education

| | |
|---|---|
| Never | |
| Primary | |
| Secondary | |
| Tertiary | |

3. Employment status

| | |
|---|---|
| Employed | |
| Unemployed | |
| Schooling | |

4. Average house-hold monthly income

| | |
|---|---|
| <R500 | |
| R500-R1000 | |
| R1000-R1500 | |
| R1500-R2000 | |
| >R2000 | |

5. What is your religion?

| | |
|---|---|
| Christian | |
| Non-Christian | |

6. Your Religion has an influence on your decision to reproduce or not?

| | |
|---|---|
| Yes | |
| No | |

If yes, how? (Describe)

_____

7. Ethnic group:

| | |
|---|---|
| African | |
| White | |
| Coloured | |
| Asians | |

8. Where are you residing?

| | |
|---|---|
| Town | |
| Village | |
| Suburb | |

9. Are you currently in a relationship?

| | |
|---|---|
| Yes | |
| No | |

10. If yes, how would you describe the relationship?

| | |
|---|---|
| Never married | |
| Married | |
| Divorced/Separated | |
| Widowed | |
| Stable relationship | |

11. Are you sexually active?

| | |
|---|---|
| Yes | |
| No | |

12. Do you have any children?

| | |
|---|---|
| Yes | |
| No | |

13. Have you thought about having (more) children since you found out that you were HIV-infected?

| | |
|---|---|
| Yes | |
| No | |

14. Do you think disclosing your HIV status to your partner could affect your choice of having or not having children?

| | |
|---|---|
| Yes | |
| No | |
| NA | |

15. Would you want to have (more) children at some point in the future?

| | |
|---|---|
| Yes | |
| No | |

If yes, what makes you want to have (more) children in the future?

_____

If yes, what things may discourage you from having (more) children in the future?

_____
_____

If no, why do you not want to have more children in the future?

_____
_____

16. Your general state of health (being sick or healthy) could affect your choice of contraceptive method or your desire to have children?

| | |
|---|---|
| Yes | |
| No | |

17. Have you discussed having (more) children in the future with your partner?

| | |
|---|---|
| Yes | |
| No | |
| NA | |

18. If yes, how would you describe your partner's opinion on whether to have (more) children?

| | |
|---|---|
| Negative | |
| Neutral | |
| Positive | |
| NA | |

19. How strongly does your partner's opinion influence your decision whether or not to have children? (read all options)

| | |
|---|---|
| Very little | |
| No influence | |
| Very strong | |
| NA | |

20. How strongly does the community's opinion influence your decision whether or not to have (more) children? (read all options)

| | |
|---|---|
| Very little | |
| No influence | |
| Very strong | |

21. Social pressure that a woman must have children would affect your choice of having or not to have children?

| | |
|---|---|
| Yes | |
| No | |

**SECTION B**

**Attitude of health care professionals**

1. Since you became HIV-infected, have you discussed having (more) children in the future with a health worker working at a hospital or clinic?

| | |
|---|---|
| Yes | |
| No | |

2. If yes, what was the position of that health worker?

| | |
|---|---|
| Nurse | |
| Doctor | |
| Counsellor | |
| Pharmacist | |
| Other | |

3. Health workers counselling can influence your choice of having or not having children?

| | |
|---|---|
| Yes | |
| No | |

4. Health worker's attitudes and approach to family planning counselling can influence your choice of having or not having children?

| | |
|---|---|
| Yes | |
| No | |

5. How do you think that health worker felt about the possibility of you having (more) children? (read all options)

| | |
|---|---|
| Negative | |
| Neutral | |
| Positive | |

6. How strongly has that health worker's opinion influenced your decision whether or not to have (more) children?

| | |
|---|---|
| No influence | |
| Very strong | |
| Little | |

**SECTION C:**

Perceptions

| | Survey scale:1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree | | | | |
|---|---|---|---|---|---|
| Question | 1 | 2 | 3 | 4 | 5 |
| 1. Pregnancy desires or intentions may influence my choice of contraceptive method. | | | | | |
| 2. My general state of health (being sick or healthy) could affect my choice of contraceptive method or my desire to have children. | | | | | |
| 3. Family, social or cultural pressure that a woman must have children would affect my choice of having or not to have children. | | | | | |
| 4. Health workers counselling can influence my choice of having or not having children. | | | | | |
| 5. Health worker's attitudes and approach to family planning counselling can influence my choice of having or not having children. | | | | | |
| 6. The type of contraceptive methods available at your nearest clinics or health centres affects my choice of having or not having children. | | | | | |
| 7. My male partner may influence my choice of having or not having children. | | | | | |
| 8. Disclosing my HIV status to my partner could affect my choice of having or not having children. | | | | | |
| 9. HIV status of my partner (either positive or negative) will affect my choice of having or not having children. | | | | | |
| 10. The fear of stigmatisation or discrimination by family or friends could affect my choice of having or not having children. | | | | | |
| 11. Health workers attitude during counselling suggest that HIV positive women must not bear children. | | | | | |
| 12. The side effects of contraceptive methods could affect my choice of family planning methods. | | | | | |
| 13. The fear of being stigmatised by my partner may affect my demand for condom use. | | | | | |

ANNEXURE B: QUESTIONNAIRE IN XITSONGA

**NONGONOKO WA SWIVUTISO/ KHWEXINERE**

**NHLOKOMHAKA: XIVANGELO LEXI NGA NA NHLOHLOTELO EKA KU LANGA KU BYARA KA VAVASATI VA KUVA NA MAVABYI YA HIV TI KLINIKI TA LE MOPANI DISTRICT.**

**LEXI NONGONOKO WA SWIVUTISO TINA XIPHEMUPHEMU XI NHARHU (3). HLAMULA HINKWASO.**

**FUNDA BOKISI HI [X]**

**E.G. RIMBEWU**

| | |
|---|---|
| **Rimbewu ra Xisati** | **X** |
| **Rimbewu ra xinuna** | |

**ABREVIATIONS**

**NA: A YI KONA**

**XIPHEMU A**

Xivangelo lexi nga na nhlohlotelo eka ku langa ku byara

1. Malembe

| | |
|---|---|
| 18-20 years | |
| 20-35 years | |
| 35-40 years | |

2. Dyondzyo

| | |
|---|---|
| Tshuki | |
| Primary | |
| Secondary | |
| Tertiary | |

3. Xiyimo xa ntirho

| | |
|---|---|
| Thoriwa | |
| Unemployed | |
| Tshuki thoriwa | |
| Xikolweni | |

4. Muholo

| | |
|---|---|
| <r500 | |
| R500-r1000 | |
| R1000-r1500 | |
| R1500-r2000 | |
| >r2000 | |

5. Vukhongeri?

| | |
|---|---|
| Mukreste | |
| Ai mukreste | |

6. Vukhongeri bya wena byi va na nhlohlotelo eka xiboho xa wena?

| | |
|---|---|
| Ina | |
| Ee | |

Loko nhlamulo kuri ina, njani? (hlamusela)

_____

7. Ntlawa

| | |
|---|---|
| African | |
| Basa | |
| Coloured | |
| Asians | |

8. U tshama kwini?

| | |
|---|---|
| Doroba | |
| Tiko | |
| Suburb | |

9.Wa eka nkarhi wa sweswi una vuxaka xana

| | |
|---|---|
| Ina | |
| Ee | |

| | |
|---|---|
| Ai tekwiwa | |
| Tekiwile | |

10. U nga hlamusela vuxaka bya wena njani?

| | |
|---|---|
| Muthariwa | |
| Noni | |
| Vuxaka byi nga tshamiseka | |

11. U na vuxaka bya rimbewu xana?

| | |
|---|---|
| Ina | |
| Ee | |

12. Una vana?

| | |
|---|---|
| Ina | |
| Ee | |

13. Ku ha va nchumu lowu u wu ehleketa hi ku va na vana ku sukela loko wena u kumile ku una vubabyi bya HIV?

| | |
|---|---|
| Ina | |
| Ee | |

14. U ehleketa kurhi disclosing xiyimo xa wena xi eka muringani swi ngaku vangela ku langa ka wena aka ku kuma vana kumbe kunga kume vana?

| | |
|---|---|
| Ina | |
| Ee | |

15. U nga lava ku va na vana vo tala eka vumundzuku bya wena?

| | |
|---|---|
| Ina | |
| Ee | |

Loko ina, i yini leswi nga ku swelaka kuva na vana?

_____

Loko ee, i yini lexi endlaka u nga lavi ku van a vana?

_____

16. Xiyimo xa rihanyo ra wena xi nga va na ku khumbheka e ka ku hlawula ka wena xisivela mbeleko?

| | |
|---|---|
| Ina | |
| Ee | |

17. U vulavurisanilena mughana wa wena wa xinuna hikuva na vana?

| | |
|---|---|
| Ina | |
| Ee | |
| Na | |

18. Loko ina, u nga hlamusela njhani vonelo ra munghana wa wena hikuva na vana?

| | |
|---|---|
| Negative | |
| Neutral | |
| Positive | |

19. Xana vonele ra munghana wa wena rina ntikelo njhani ku susimeta xiboho xa wena xa kuva na vana kumbe ku nga vi na vana?

| | |
|---|---|
| Xintsongo | |
| No influence | |
| Very strong | |
| Na | |

20. Ndwawu leyi u tshamaka eka yona yina nsusumeto eka xiboho xa wena kuva na vana kumbe kunga vi na vana?

| | |
|---|---|
| Xintsongo | |
| No influence | |
| Very strong | |
| Na | |

21. Vonele ra vanhu ra ku wansati u fane a van a vana ri khumbha njhani xiboho xa wena xo van a vana kumbe ku nga vi na vana?

| | |
|---|---|
| Ina | |
| Ee | |

**XIPHEMU B**

ku tikhoma ka vhatiri vha rihanyo

1. Ku sukela loko wena u hundzuka kuva na vubyabyi bya HIV, ku van a mburisano shikarini ka wena na mutirhi wa rihanyo e ka Kliniki kumbe Xibedlele hi kuva u kuma vana vangwana e vumundzuku

| | |
|---|---|
| Ina | |
| ee | |

2. If yes, what was the position of that health worker? Loko ina, position ya mutirhi wa rihanyo a kuri yini?

| | |
|---|---|
| Muongori | |
| Dokodela | |
| Counsellor | |
| Pharmacist | |
| Other | |

3. Vuleteri bya vatiri vha rihanyo byi nga va na nhlohlotelo e ka wena ku langa ku kuma vana kumbe kunga kume vana?

| | |
|---|---|
| Ina | |
| Ee | |

**4.** Ku tikhoma ka vhatiri vha rihanyo mayelana na ku sungula ndyangu ku nga va ni nhlihleleto wrhi eka ku u van a vana kumbe unga vi na vana?

| | |
|---|---|
| Ina | |
| Ee | |

5. U ehleketa leswaku vatirhi va rihanyo va titwa njhani hi xiboho xa wena xa ku van a vana vo tala?

| | |
|---|---|
| Negative | |
| Neutral | |
| Positive | |

6. Xana vonelo ra mutirhi wa rihanyu ri ku hlohletela njhani ku van a vana va tala kumbe ku nga vi na vana?

| | |
|---|---|
| Ee nhlohlotelo | |
| Very strong | |
| Little/ Xintsongo | |

## XIPHEMU C

## Perceptions

| | Survey scale survey / lavisisa xikalu:<br>1= strongly disagree/ leswi tiyeke ala<br>2= disagree/ ala<br>3= neutral/exikarhi 4= agree/twanana<br>5= strongly agree/ leswi tiyeke twanana | | | | |
|---|---|---|---|---|---|
| Xivutiso | 1 | 2 | 3 | 4 | 5 |
| 1. Ku navela ku tika e mirini kumbe khwirini kunga va na nhlohlotelo wrhi eka ku hlawulanswisivela mbeleko. | | | | | |
| 2. Rihanyo ra mina kumbe ku vabya ku nga van a xiave eka ku hlawula swisivela mbeleko kumbe ku va na vana. | | | | | |
| 3. Maxaka kumbe ndhavuko wa kuri wansati u fane a van a vana swita hlohlotela njhani ku ri ni van a vana kumbe ku nga ni na vana. | | | | | |
| 4. Vuleteri bya ku hum aka vatirhi va rihanyo ku nga van a xiave xa ku ni van a vana kumbe ku nga vi na vana. | | | | | |
| 5. Ku tikhoma ka vatirhi va rihanyo mayelana naku sungula ndyangu swi nga hlohlotela ku hlawula ka mina ka kuva na vana kumbe ku nga vi na vana. | | | | | |
| 6. Muxaka wa swisivela mbeleko e ka kliniki ya wena ya le ku suhi swinga hlohlotela ku hlawula ka wena ku va na vana kumbe ku nga vi na vana. | | | | | |
| 7. Munghana wa mina wa xinuna a nga va na nkucetelo eka ku hlawula ka mina ku va na vana kumbe ku ngavi na vana. | | | | | |
| 8. Ku paluxa xihundla xa mavabyi ya mina eka munghana wa mina swi nga va na nkucetelo e ka ku ni van a vana kumbe ku nga vi na vana. | | | | | |
| 9. Ku va na mavabyi ya HIV kumbe kunga vi na wona swi nga kucetela xiboho xa mina xa ku va na vana kumbe ku nga vi va vona. | | | | | |
| 10. Ku chava xihlawuhlawu no hlekuriwa hi maxaka na vanghana swi nga kucetela xoboho xa mina xa ku va na vana kumbe ku nga vi na vana. | | | | | |
| 11. Kuti khoma ka vatirhi va rihanyo hinkarhi wa vuleteri ku komba kuri vavasati lava nga na mavabyi ya HIV va nga kumi vana. | | | | | |
| 12. Switandzhaku swa swisivela mbeleko swi nga va na nkucetelo eka ku hlawula ka mina nkunguhato. | | | | | |
| 13. Ku chava ku soriwa hi munghana wa mina wa xinuna ku nga va na nkucetelo e ka ku va u lava ku tirhisa khondhomu. | | | | | |

ANNEXURE C: ETHICAL CLEARANCE CERTIFICATE, DEPARTMENT OF HEALTH STUDIES, UNISA

UNISA university of south africa

**RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES**
**REC-012714-039 (NHERC)**

6 December 2017

Dear Ms Thema Moyagabo Mogau

**HSHDC/822/2017**
Ms Thema Moyagabo Mogau

Student No.:4911-598-7
Supervisor: Dr TG Lumadi
Qualifications : D Litt et Phil
Joint Supervisor:

**Decision: Ethics Approval**

**Name:** Ms Thema Moyagabo Mogau

**Proposal:** Factors influencing reproductive health choices of HIV positive women in Limpopo Province

**Qualification:** **MPCHS94**

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted from 6 December 2017 to 6 December 2019

*The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on. 6 December 2017*

*The proposed research may now commence with the proviso that:*

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*

2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*

Open Rubric

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

4) *[Stipulate any reporting requirements if applicable].*

*Note:*
*The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.*

Kind regards,

Prof J.E. Maritz

Prof JE Maritz
CHAIRPERSON
maritje@unisa.ac.za

Prof MM Moleki
ACADEMIC CHAIRPERSON
molekmm@unisa.ac.za

Prof A Phillips
DEAN COLLEGE OF HUMAN SCIENCES



University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

ANNEXURE D: PERMISSION LETTER TO THE DEPARTMENT OF HEALTH LIMPOPO TO CONDUCT A RESEARCH STUDY

**Access letter**

Department Of Health Limpopo Province

Research Committee

Private Bag X9302

Polokwane

0700

15 April 2018

Research Committee

Department Of Health Limpopo Province

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT LETABA GATEWAY, NKOWANKOWA AND DAN CLINICS IN GREATER TZANEEN.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Masters Degree in Public Health with the University Of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of HIV positive women attending primary health care services at Mopani District in Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of HIV positive women attending Primary Health Care Clinics at Mopani District.

The focus will be on HIV positive women between the ages of 18-40 years old. The process will involve questionnaires which will be given to the participants and they will

then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertake to observe all ethical principles for conducting the research study.

**Significance of the research study:**

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of PLHIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of HIV positive women in its programmes.

**The institution**

The information could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of PLHIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of PLHIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration

Yours sincerely

Thema Moyagabo Mogau

Email Address: paballodakalo@gmail.com

Cell number: 081 568 7725

Signature:

ANNEXURE E: PERMISSION LETTER TO THE DEPARTMENT OF HEALTH LIMPOPO MOPANI DISTRICT TO CONDUCT A RESEARCH STUDY

**Access letter**

Department of Health

Mopani District

Private x 9628

Giyani

0826

15 April 2018

The District Manager

Mopani District

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT LETABA GATEWAY, NKOWANKOWA AND DAN CLINICS IN GREATER TZANEEN.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Masters Degree in Public Health with the University Of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of HIV positive women attending primary health care services at Mopani District in Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of HIV positive women attending Primary Health Care Clinics at Mopani District.

The focus will be on HIV positive women between the ages of 18-40 years old. The process will involve questionnaires which will be given to the participants and they will

then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertake to observe all ethical principles for conducting the research study.

**Significance of the research study**:

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of PLHIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of HIV positive women in its programmes.

**The institution**

The information could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of PLHIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of PLHIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration

Yours sincerely

Thema Moyagabo Mogau

Email Address: paballodakalo@gmail.com

Cell number: 081 568 7725

Signature:

ANNEXURE F: PERMISSION TO CONDUCT RESEARCH STUDY FROM DEPARTMENT OF HEALTH

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Enquiries: Stander SS (015 293 6650)

Ref: **LP_2018** 10.015

**Mogau TM**
**UNISA**

Greetings,

**RE: . Factors influencing reproductive health choices of HIV positive women in Limpopo Province**

1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
   - Research must be loaded on the NHRD site (http://nhrd.hst.org.za) by the researcher.
   - Further arrangement should be made with the targeted institutions, after consultation with the District Executive Manager.
   - In the course of your study there should be no action that disrupts the services, or incur any cost on the Department.
   - After completion of the study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   - The above approval is valid for a 3 year period.
   - If the proposal has been amended, a new approval should be sought from the Department of Health.
   - Kindly note, that the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated.

Head of Department

Date 31/10/2018

**Private Bag X9302 Polokwane**
**Fidel Castro Ruz House, 18 College Street. Polokwane 0700. Tel: 015 293 6000/12. Fax: 015 293 6211.**
**Website: http/www.limpopo.gov.za**

***The heartland of Southern Africa – Development is about people!***

ANNEXURE G: PERMISSION LETTER TO OPERATIONAL MANAGER AT NKOWANKOWA HEALTH CENTRE

Department of Health
Mopani district
Private x 9628
Giyani
0826

10 December 2018

The Operational Manager
Nkowankowa Health Centre

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT NKOWANKOWA HEALTH CENTRE.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Master in Public Health with the University of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of HIV positive women attending Primary Health Care Services at Mopani District, Limpopo Province.

The focus will be on women living with HIV between the ages of 18-40 years old. The process will involve questionnaires which will be given to the respondents and they will then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertakes to observe all ethical principles for conducting the research study.

**Significance of the research study:**

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of people living with HIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of HIV positive women in its programmes.

**The institution**

The information could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of people living with HIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of PLHIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration.

Yours sincerely,

Thema Moyagabo Mogau

Email Address: paballodakalo@gmail.com
Cell number: 081 568 7725
Signature:

ANNEXURE H: PERMISSION LETTER TO OPERATIONAL MANAGER AT NKOWANKOWA HEALTH CENTRE

Department of Health
Mopani district
Private x 9628
Giyani
0826

10 December 2018

The Operational Manager
Letaba Gateway Clinic

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT LETABA GATEWAY CLINIC.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Master in Public Health with the University of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of HIV positive women attending Primary Health Care Services at Mopani District, Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

The focus will be on women living with HIV between the ages of 18-40 years old. The process will involve questionnaires which will be given to the respondents and they will then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertakes to observe all ethical principles for conducting the research study.

**Significance of the research study:**

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of people living with HIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of in its programmes.

**The institution**

The information could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of people living with HIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of people living with HIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration.

Yours sincerely,

Thema Moyagabo Mogau

Email Address: paballodakalo@gmail.com
Cell number: 081 568 7725
Signature:

ANNEXURE I: PERMISSION LETTER TO OPERATIONAL MANAGER AT DAN CLINIC

Department of Health
Mopani district
Private x 9628
Giyani
0826

10 January 2019

The Operational Manager
Dan Clinic

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT DAN CLINIC.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Master in Public Health with the University of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

The focus will be on women living with HIV between the ages of 18-40 years old. The process will involve questionnaires which will be given to the respondents and they will then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertakes to observe all ethical principles for conducting the research study.

**Significance of the research study:**

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of people living with HIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of HIV positive women in its programmes.

**The institution**

The information could inform the establishment and/or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of people living with HIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of PLHIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration.

Yours sincerely,

Thema Moyagabo Mogau

Email Address: paballodakalo@gmail.com
Cell number: 081 568 7725
Signature:

ANNEXURE J: PERMISSION LETTER TO OPERATIONAL MANAGER AT MUGODENI GRACE HEALTH CENTRE

Department of Health
Mopani district
Private x 9628
Giyani
0826

10 December 2018

The Operational Manager
Mugodeni Grace Health Centre

Dear Sir /Madam

**RE: REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY AT MUGODENI GRACE HEALTH CENTRE.**

I do hereby request for permission to conduct a research in your organization as a requirement for my studies in Master in Public Health with the University of South Africa (UNISA).

**Research Topic**: Factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

**Research purpose**: To determine the factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani District, Limpopo Province.

The focus will be on women living with HIV between the ages of 18-40 years old. The process will involve questionnaires which will be given to the respondents and they will then be asked to answer in the absence of the researcher and submit them after completion. The questionnaires will be used by the researcher and her supervisor for the purpose of the study only and will be destroyed when they are no longer needed.

The researcher undertakes to observe all ethical principles for conducting the research study.

**Significance of the research study:**

**The department of health**

This research study is likely to contribute to an increase in the level of awareness of the sexual and reproductive health needs of people living with HIV. It also aims to facilitate a better understanding of the reproductive health needs of women living with HIV and to help them to make informed decisions. The study also seeks to advocate an overall health care system that recognizes the importance of catering for the needs of HIV positive women in its programmes.

**The institution**

The information could inform the establishment and/ or improvement of reproductive health choices for HIV positive patients. This study will add value to the service delivery and control of HIV and AIDS. Identification of these factors will help in better approach to HIV prevention and family planning services, reduce the risk of people living with HIV women infecting to both knowing and unknowing sero-discordant sexual partners, and reduce the risk of transmission of HIV to children, reduce infant mortality rates from HIV/AIDS, and in the long term reduce the incidence and prevalence of HIV in this area.

**The nurses**

The nurses will be able to identify the factors that affect reproductive choices and respect those choices. It will also help to encourage improvement in the attitudes and knowledge of the nurses and communities, towards HIV positive people on ART with regard to their reproductive choices. Identification of these factors could help the health professionals working at this facility to have insight into a more holistic approach to management of PLHIV women and their reproductive health needs.

**The patient**

The study will benefit the patients by preventing unintended pregnancy and improving reproductive health. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal.

The following people can be contacted for further clarity on the research process and ethical aspects:

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

Thank for your consideration.

Yours sincerely,

Thema Moyagabo Mogau
Email Address: paballodakalo@gmail.com
Cell number: 081 568 7725
Signature:

ANNEXURE K: CONSENT FORM FOR PARTICIPATION

I, Thema Moyagabo Mogau, (Student number 49115987) am a student at the University of South Africa (UNISA). I am currently registered for Master in Public Health. In partial fulfilment of the programme requirements, I am supposed to do a research study.

**The topic of the research study is**

Factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani district, Limpopo Province.

**The purpose of the research study**

The purpose of the research study is to determine the factors influencing reproductive health choices of women living with HIV attending Primary Health Care Services at Mopani district.

**Procedures**

You will be required to respond to a questionnaire which consists of section A which consist of 21 questions, section B which consist of 6 questions, section c which consists of 13 questions written in English language and Xitsonga language. The questionnaire will be self-administered by the researcher. It may take 15 minutes of your time to complete the questionnaire. Your bio data may also be obtained from your clinic card where necessary.

**Potential risks and discomforts**

The risks for this study are minimal except that it may cause discomfort by provoking some emotional or psychological reaction depending on whether you have accepted your HIV positive status or if the circumstances to be blamed for your status are related to any questions being asked in the questionnaire. We will like to deal with this minor discomfort by reassuring you that the essence of the study is not to be judgemental. Neither is it an attempt to probe unnecessarily into your privacy but to bring out issues that could be used as valuable information to help participants and other people in similar situation. We have

put everything in place to ensure that such information is kept strictly confidential and only for the purpose of this study. You are welcomed to seek further counselling with the researcher if you encounter any discomfort.

**Potential benefits to Subjects and Society**

The potential benefits of this study to you are that it may help you to adopt a better approach to the planning of your reproductive life and also help you make healthier choices in the management of your HIV condition. The patients will be free to consult and they will make choices that suits them and seek advice on those choices without fear of reprisal. The benefits of this study to the society is that it may help in better approach to HIV prevention and family planning services by healthcare practitioners and HIV/AIDS programme managers, reduce the risk of HIV positive women getting re-infected with more viral load, reduce the risk of HIV positive women infecting to both knowing and unknowing sero-discordant sexual partners, and in the long term reduce the incidence and prevalence of HIV in this area.

**Payment for participation**

Participation in this study is voluntary. No payment will be made for participation in the study but refreshments may be provided for the inconveniences.

**Confidentiality**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained in this way: The names of participants will neither be written on the questionnaires nor the consent to maintain anonymity of the participants. Instead, each participant will be allotted study identification number. Data collected will be kept secret and safe all the time with the researcher. The information might also be inspected by the University of South Africa, Research Ethics Committee. The records will only be utilized by them in carrying out their obligations relating to this study.

**Participation and Withdrawal**

You can choose whether to participate in this study or not. If you volunteer to be in this study, you may discontinue participation without penalty. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

**Identification of Researcher**

If you have any questions or concerns about the research, please feel free to contact:

The researcher, Ms. M.M. Thema at Letaba Hospital on 081 568 7725, Email: paballodakalo@gmail.com.

Supervisor: Dr Lumadi TG, University of South Africa, Department of Health Studies, Email address: lumadtg@unisa.ac.za.

Chair of the research ethics committee of the University of South Africa, Prof J E Maritz, Department of Health Studies, Email address: maritje@unisa.ac.za.

**Signature of participant**

The information above was described to me by Thema Moyagabo Mogau in English and I am in command of this language or it was satisfactorily translated to me in Xitsonga Language by the researcher. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily in this study. I have been given a copy of this form.

| Surname and initials of participants | Signature | Date |
|---|---|---|
| …… | …… | …… |

**Signature of Researcher**

I declare that I explained the information given in this document to _____. She was encouraged and given enough time to ask me any questions. This conversation

was conducted in English and no translator was used or this conversation was translated in to Tsonga by _____.

**Signature of Researcher** **Date**

…… ……..